

Open Education Resource: Flipping the classroom with MOODLE

Work done as part of AICTE approved FDP on Use of ICT in
Education for Online and Blended Learning

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Open Education Resource: Flipping the Artificial Intelligence classroom with MOODLE

About the OER

As a part of this OER, we have divided the lessons into five units. In each unit, the specific and related PPTs are uploaded. There are five units of “Artificial Intelligence” and each deals with an aspect related to Introduction to AI and Production systems, Representation of Knowledge, Knowledge inference, Planning and Machine learning and Expert systems.

(i)OER can be downloadable from <https://ajitha2017.wordpress.com/fdp101x/>

(ii) **Target Audience:** Third year Engineering Students of all Affiliated Colleges of Anna University, Chennai.(CSE/IT)

(iii) **Tags:** Introduction to AI-Problem formulation, Problem Definition -Production systems, Control strategies, Search strategies. Problem characteristics, Production system characteristics -Specialized production system- Problem solving methods - Problem graphs, Matching, Indexing and Heuristic functions -Hill Climbing-Depth first and Breadth first, Constraints satisfaction - Related algorithms, Measure of performance and analysis of search algorithms. Game playing - Knowledge representation, Knowledge representation using Predicate logic, Introduction to predicate calculus, Resolution, Use of predicate calculus, Knowledge representation using other logic-Structured representation of knowledge. Knowledge representation -Production based system, Frame based system. Inference – Backward chaining, Forward chaining, Rule value approach, Fuzzy reasoning - Certainty factors, Bayesian Theory-Bayesian Network-Dempster - Shafer theory. Basic plan generation systems - Strips -Advanced plan generation systems – K strips –Strategic explanations -Why, Why not and how explanations. Learning- Machine learning, adaptive Learning. Expert

systems - Architecture of expert systems, Roles of expert systems - Knowledge Acquisition – Meta knowledge, Heuristics. Typical expert systems - MYCIN, DART, XON, Expert systems shells.

(iv) OER developed in moodlecloud.com

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Learning Objectives:

The student will be able to:

1. Assess what constitutes "Artificial" Intelligence and how to identify systems with Artificial Intelligence.
2. Apply basic AI algorithms to solve problems.
3. Implement classical Artificial Intelligence techniques, such as search algorithms, minimax algorithm and the basic issues of knowledge representation, that play an important role in AI programs.
4. Interpret the concepts of some of the more advanced topics of AI such as Planning, Expert Systems and machine learning.

Helpful Documentation for Tool Use:

- [1] Course Portfolio (Content Management System) is created in Wordpress.
- [2] Learning materials(Course contents) are created using PPT.
- [3] Continuous Internal Assessment, Quiz, Feedback form and Discussion Forum are created on moodlecloud.
- [4] MsWord for documentation purpose.

Section 2: Design Decisions

Nature of Decisions taken:

The design decisions involved in the creation of this OER were of broadly three types:

1. Content Decisions
2. Pedagogic Decisions
3. Technology Decisions

Content Decisions:

The whole subject of Artificial Intelligence has been divided widely into 5 units. Lessons in the form of PPTs are provided. This includes

- Introduction to AI and Production systems
- Representation of Knowledge
- Knowledge inference
- Planning and Machine learning and
- Expert systems

Books used as references to create Artificial Intelligence OER are,

1. Kevin Night and Elaine Rich, Nair B., "Artificial Intelligence (SIE)", Mc Graw Hill- 2008.
2. Stuart Russel and Peter Norvig "AI – A Modern Approach", 2nd Edition, Pearson Education 2007.

Pedagogic Decisions:

We have used flipped classroom strategy that contains two segments:

- Out-of-class segment and
- In-class segment.

The out-of-class activity was designed in such a way that it forms a basic understanding of the concepts that are relevant to a topic CSP. Assessment questions were included which includes Cognitive Levels of questions mostly Apply level. During in-class activities like TPS activity, Peer instruction questions were posted to students to check deeper understanding on the topic that was taught.

Example for Flipped classroom Activity Constructor for Artificial Intelligence Course for the Topic CSP:

<https://drive.google.com/file/d/0B3d2KsZeJ6f7MUNhdjBZYy0tVG8/view>

Also, Practice Quiz, Assignment, Question Bank, Important questions and Previous year Anna University solved questions and answers were provided. The continuous internal assessment was also done in moodlecloud in online by selecting questions from question bank and shuffling the questions.

Technology Decisions:

For developing the out-of-class and in-class activities, the major technology used is mentioned below:

a. Tool used for creating learning materials – Microsoft Powerpoint

b.OER Material(PPT, Quiz, Assignment, Feedback,Discussion forum):moodlecloud.com is created where course on “**Artificial Intelligence**” was developed and for out of class activity, Moodle Quiz Activity(Learning by Doing) and for assignments(Assignment Activity) was selected. For improvement of the course content, the feedback question sections(Feedback Activity) was made. To clarify the doubts, the students can use the Forum activity of moodlecloud.

Section 3: OER Description

Active OER:

For checking the active OER, you may access the Guest Course

<https://ajithanice.moodlecloud.com/course/view.php?id=3>

To login to the moodlecloud, use the following details:

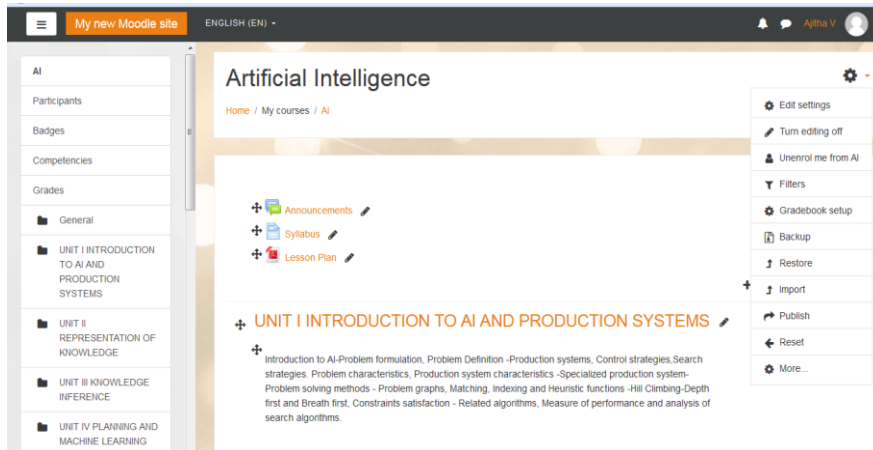
Username: visitor

Password: visitor

Lesson Settings:

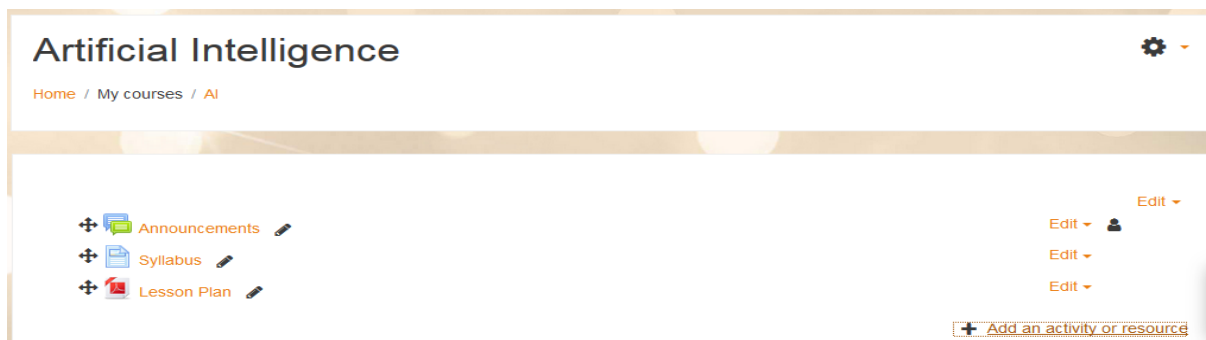
(i) Building a Moodle Course:

1. To add or alter activities or resources a teacher will need to turn editing on and off with a button on the course homepage. Use the Turn Editing On button in the top right corner of the screen to toggle edit mode on or off.

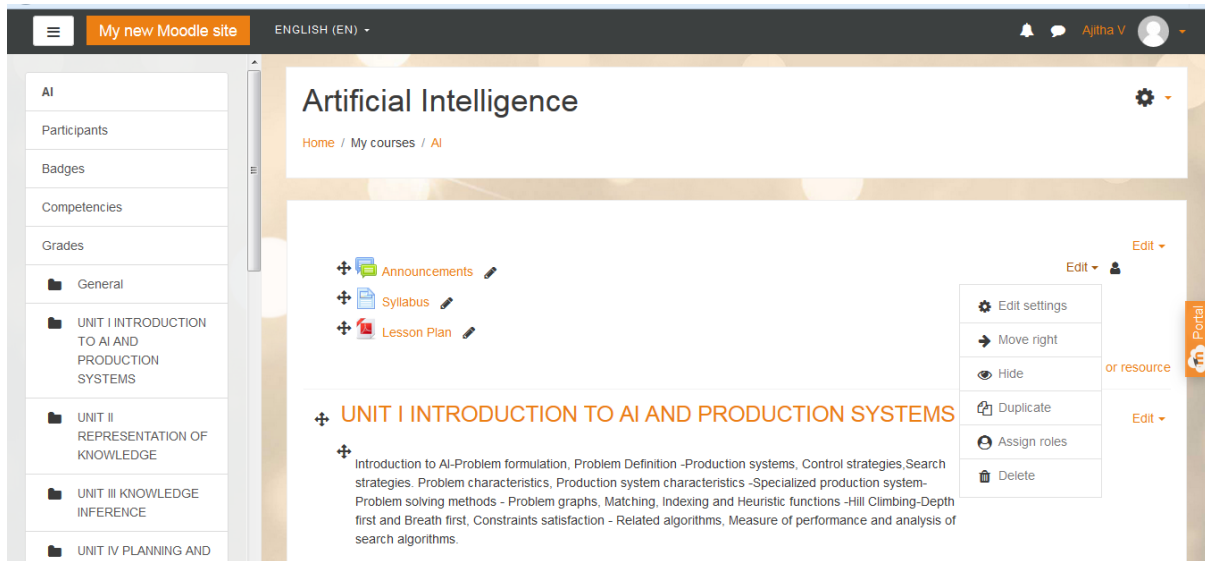


When editing is turned on, editing icons are visible beside of each content item in the course.

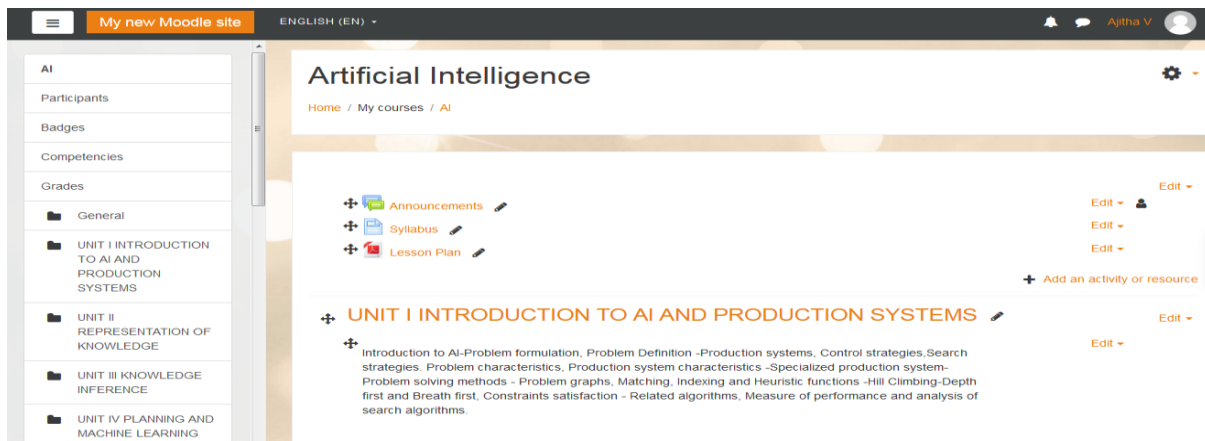
2. To add content to the course simply click the "Add activity or resource" link at the bottom of any section of the course.



3. To edit an item click the gear icon next on Edit.



4. To move an item, click the arrow icon to the left of the item or section. Then drag and drop the item to the desired area on the homepage.

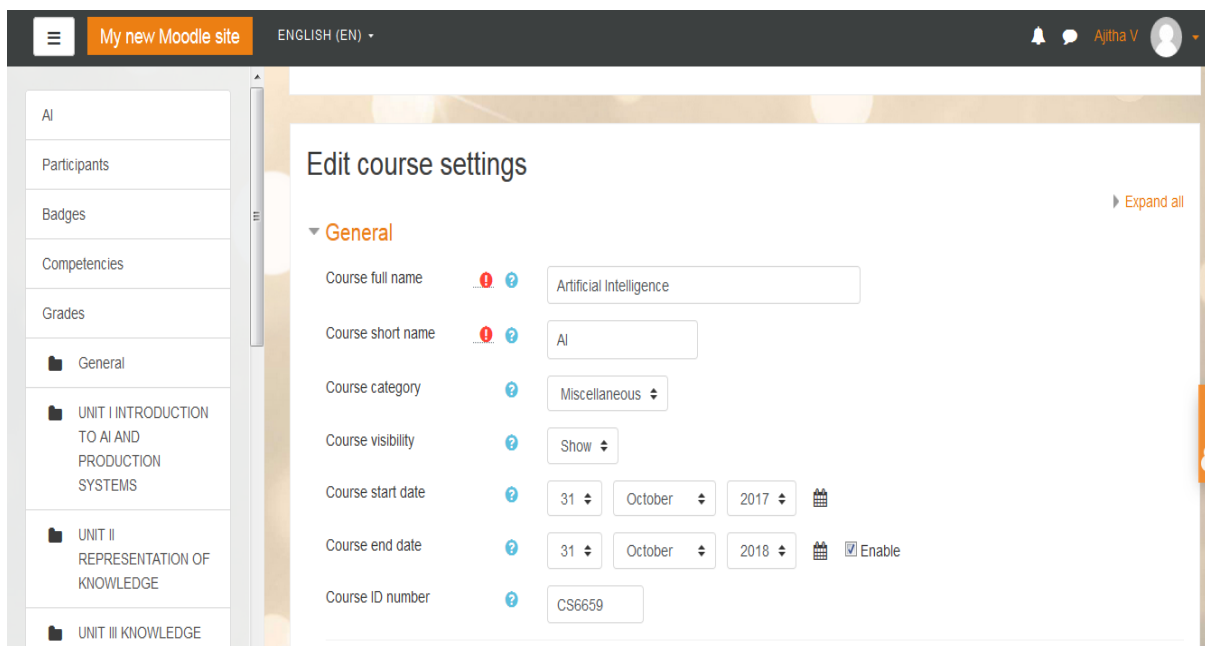


5. If the eye is open then the item is visible. If the eye is closed, and the item is grayed out, then it is hidden from students. The eye is a toggle, click once to hide, click again to show. Note that you can hide/show entire sections and/or individual items.

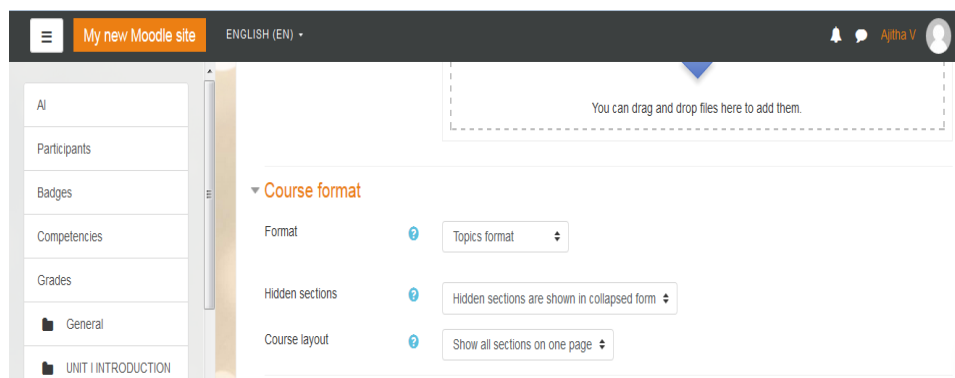


(ii) Course Layout & Formatting Options

1. To create the desired course, click Edit Settings on the right.



2. Expand the Course format section by clicking the heading. Choose the desired Format of your course from the drop down list. Choose the desired number of sections (or weeks) you wish to have. After making any changes be sure to scroll to the bottom of the page and click Save Changes.

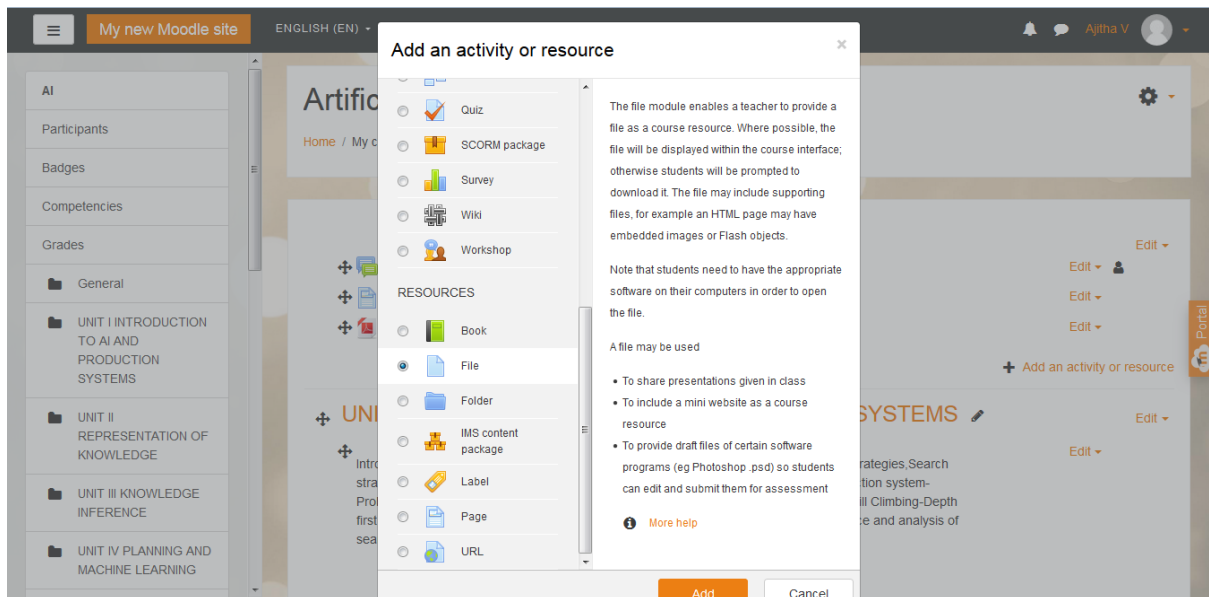


(iii) Creating Resources

a) To add a File:

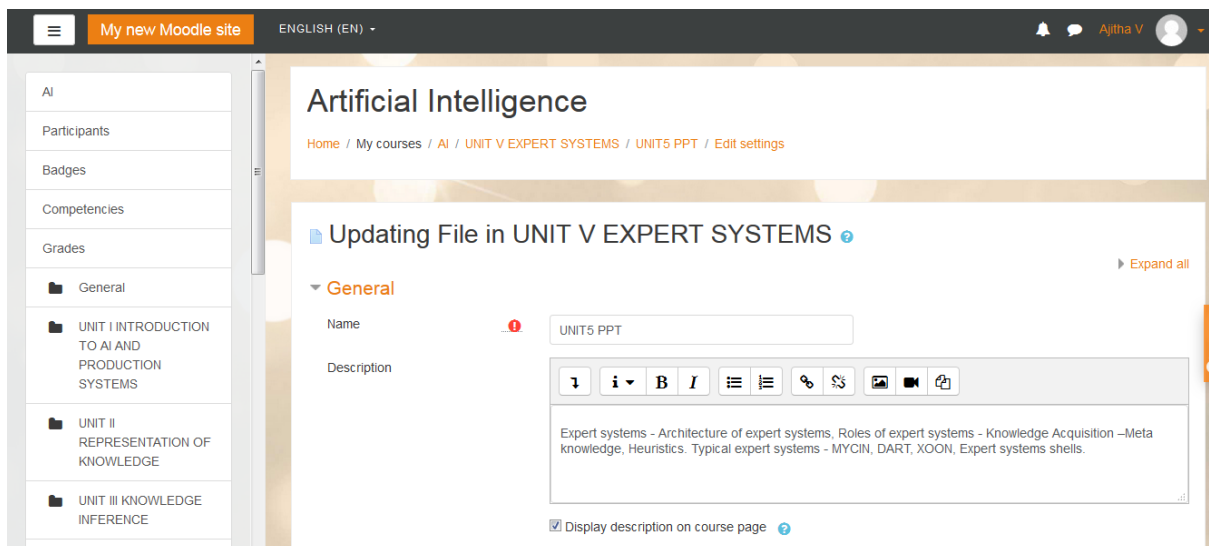
1. Log into Moodlecloud.
2. Enter your course.
3. Click the Turn Editing On button.
4. Scroll down to the Topic/Week to which you intend to add the resource.

5. Click the Add an Activity or Resource link.
6. Choose file from the list and click the Add button.



Resources: File

7. Key the name of your file.
8. In the description box, key a brief description of your file (optional).
9. If you keyed a description, be sure to check the "Display description on the course page" check box. Otherwise your students may never see the description.



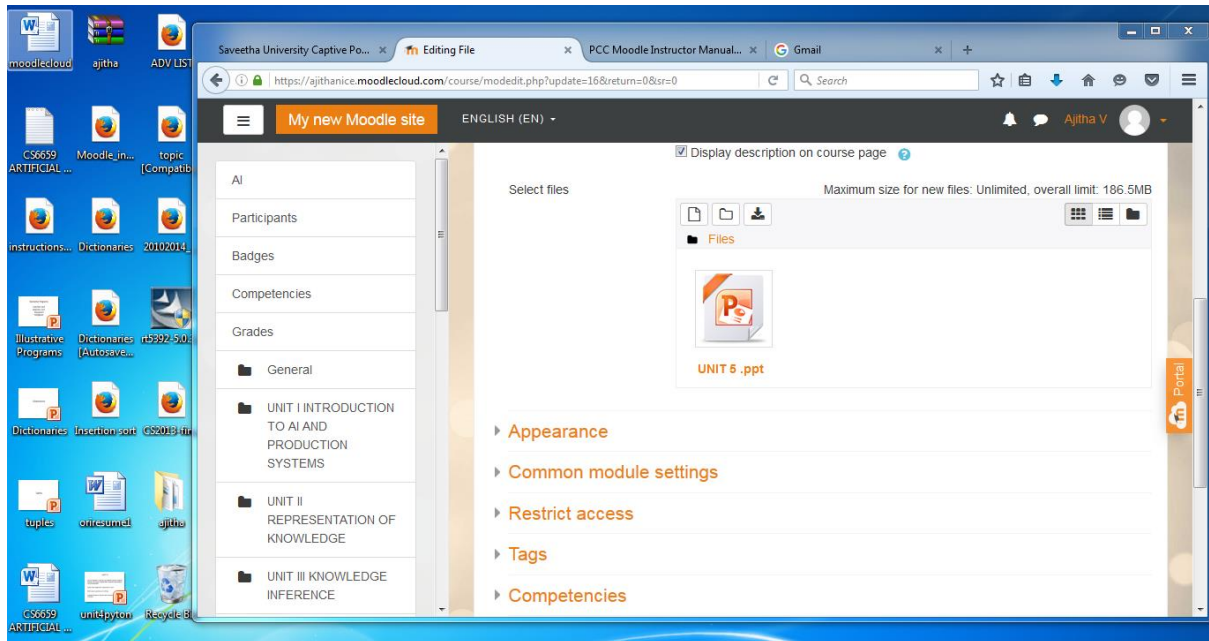
Upload a file: Name & Description

At this point you have 2 options. (A) Drag & Drop or (B) Manual Upload.

(A) To Drag & Drop your file:

10. Re-arrange your screen so that you can see both Moodle and the window containing your file at the same time. Saving your file to your desktop makes this step easy.

11. Click and drag your file from its location onto the Content box on your Moodle screen.

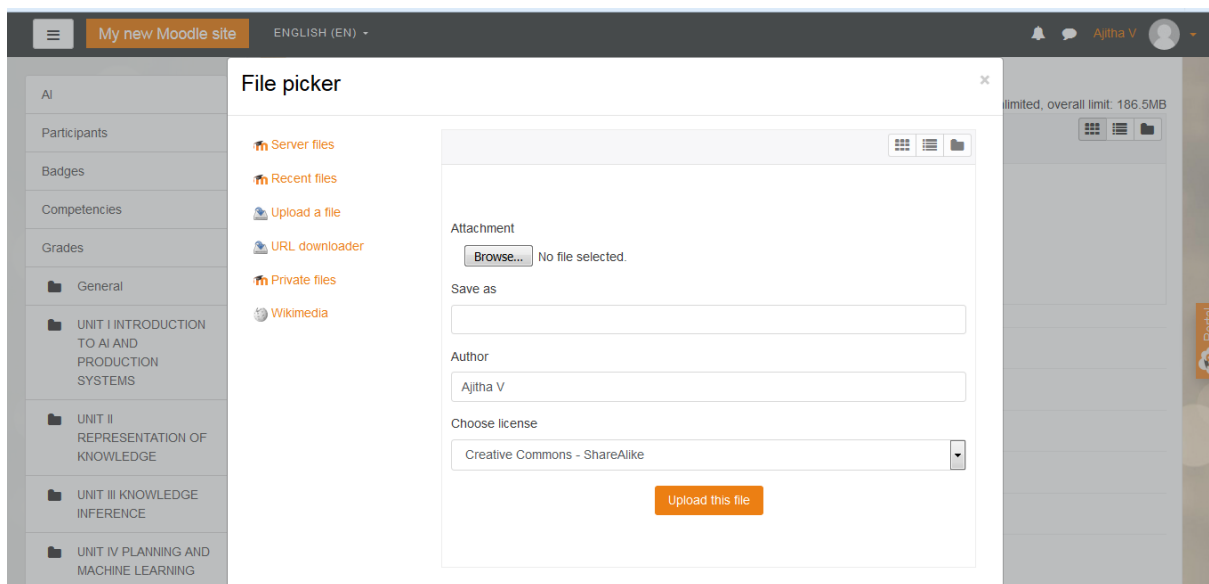


Drag & Drop File Upload

12. Proceed to step #19.

(B) To Manually Upload your file:

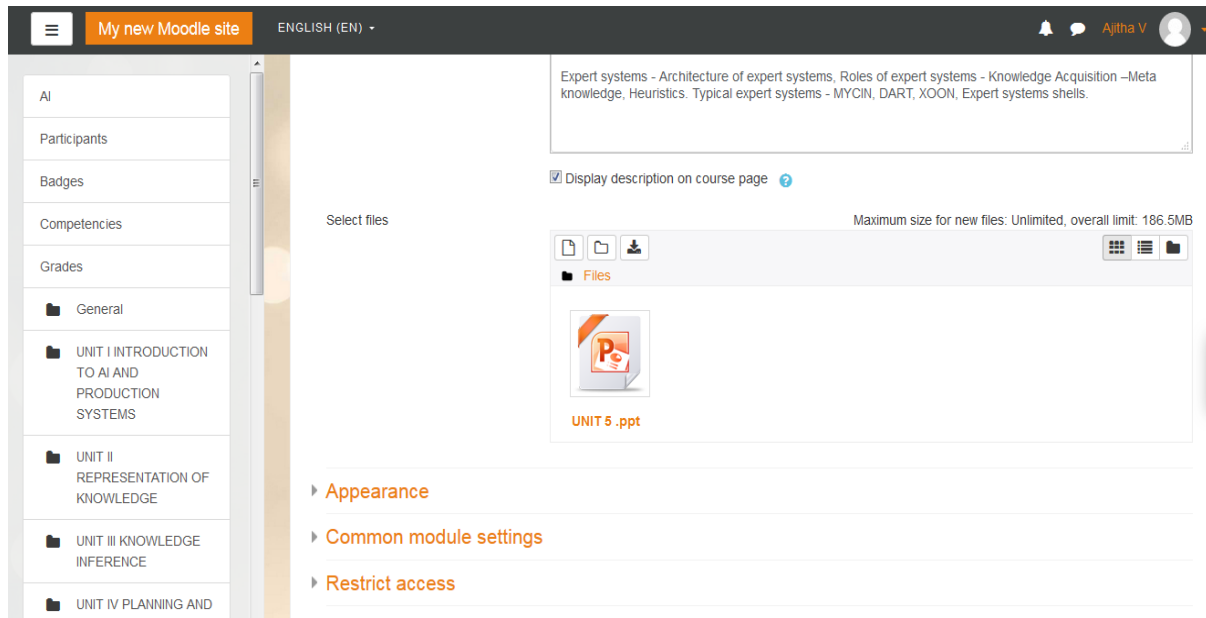
13. Click the Add button. The File Picker opens in a new window.



Manually Upload A File

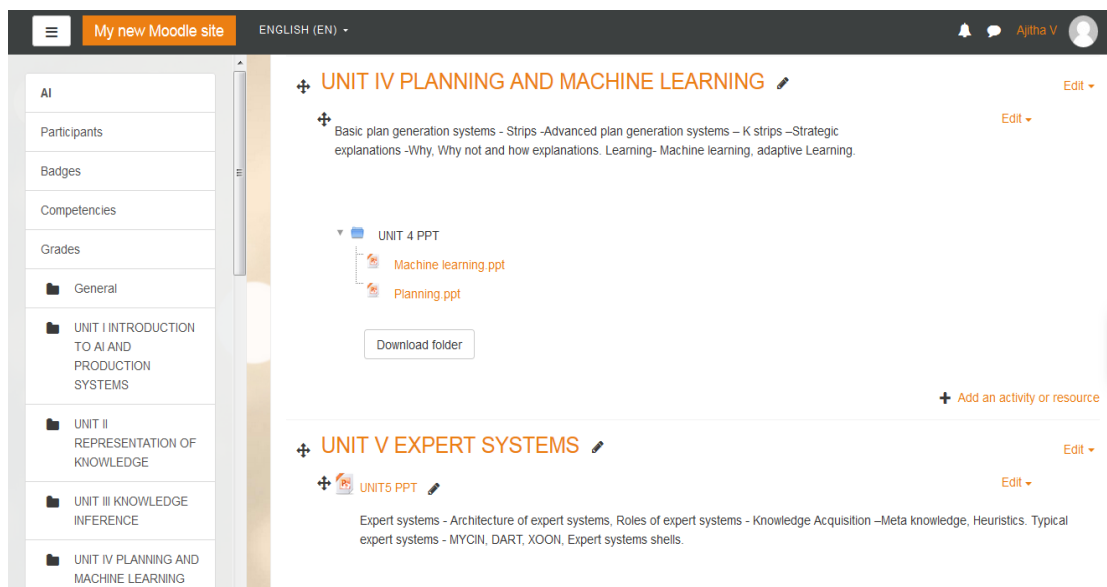
14. Choose the location of your file from the list of repositories on the left.

15. Click the Browse button.
16. Locate and select (double click) the desired file to upload.
17. Change the license to other (recommended).
18. Click the Upload this file button.



File Successfully Uploaded

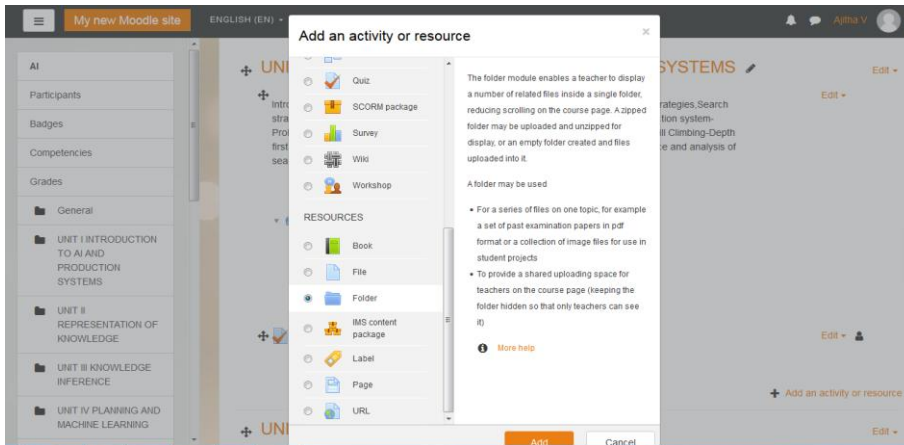
19. Set your choice of display options by expanding the Appearance section. If you're unsure what to choose leave the default settings as it is. Automatic is always a safe bet.
20. Scroll to the bottom of the page and click Save and Return to Course.
21. Your file will now appear on the course page.



File accessible from main Course Page

b) To add a folder:

1. Log into moodlecloud.
2. Enter your course.
3. Click the Turn Editing On button.
4. Scroll down to the Topic/Week to which you intend to add the resource.
5. Click the Add an Activity or Resource link
6. Choose Folder from the list.

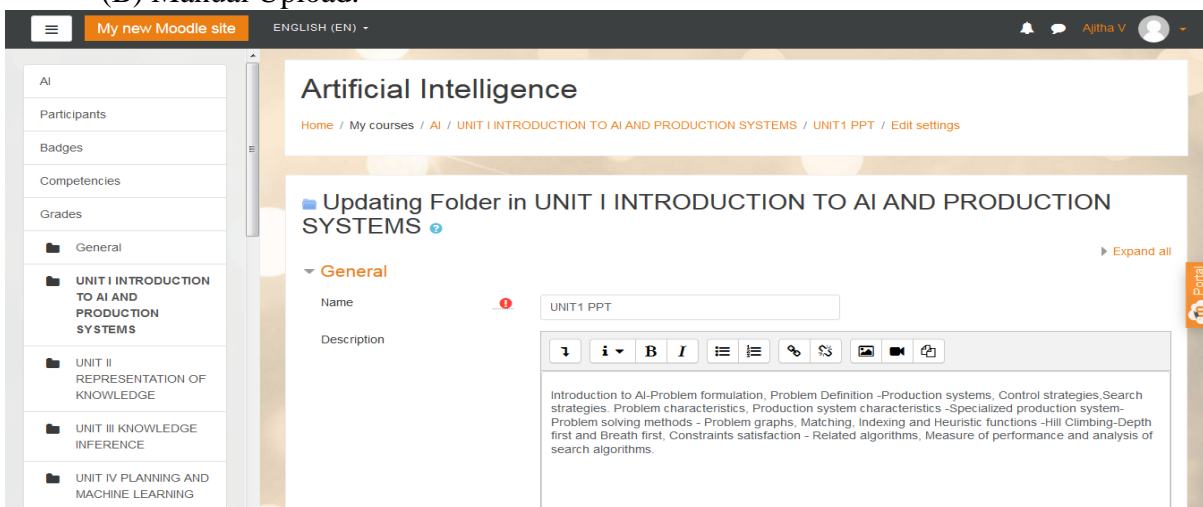


Resources: Folder

7. Key a name of your Folder.
8. In the description box, key a brief description of your folder (optional).
9. If you keyed a description, be sure to check the "Display description on the course page" check box.

At this point you have 2 options.

- (A) Drag & Drop
- (B) Manual Upload.



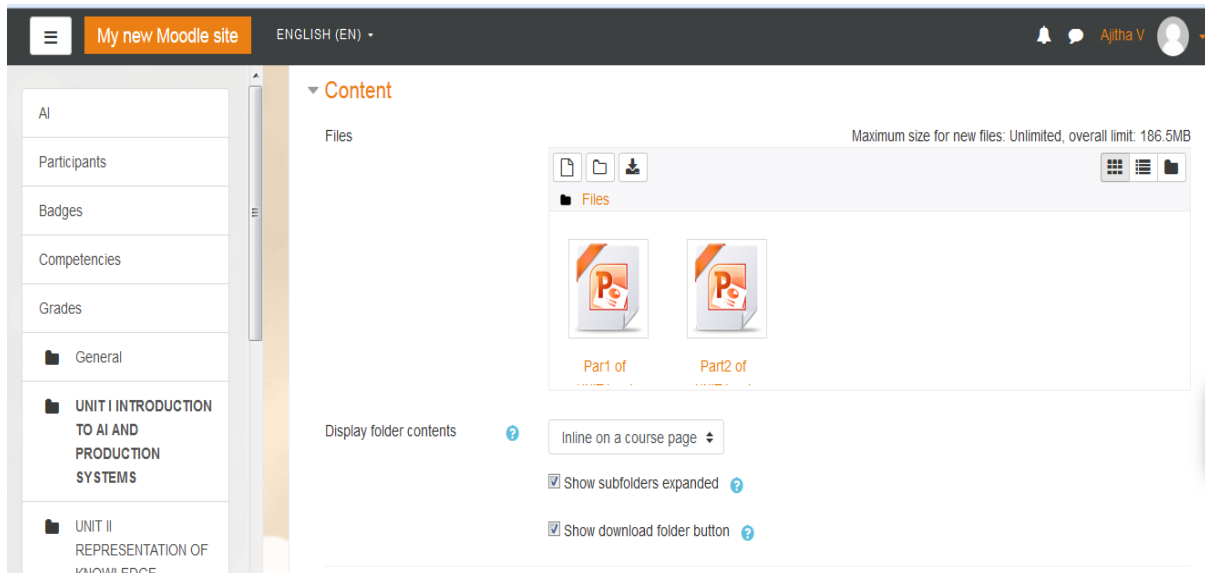
Name & Describe Your Folder

(A) To Drag & Drop your file:

10. Re-arrange your screen so that you can see both Moodle and the window containing your file at the same time. Saving your file to your desktop makes this step easy.
11. Click and drag your file from it's location onto the Content box on your Moodle screen.
12. Proceed to step #19.

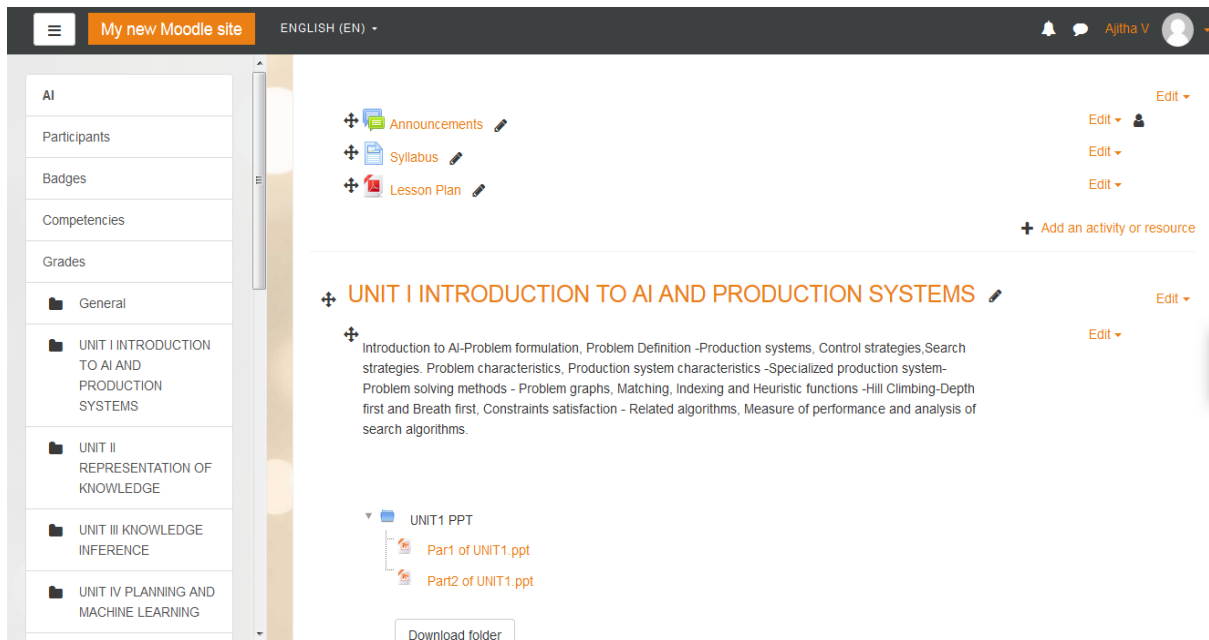
(B) To Manually Upload your file:

13. Click the Add button.
14. Choose the location of your file from the list of repositories on the left.
15. Click the Browse button.
16. Locate and select (double click) the desired file to upload.
17. Change the license to other (recommended).
18. Click the Upload this file button.
19. Repeat the upload process as many times as needed until you have uploaded all of the files. You will see the files displayed in the Content section as they are uploaded.
20. Decide if you would like the files to open "On a separate page" (in a new window/tab) or "Inline on the course page" (right on the same page as your course).



Multiple Files Uploaded

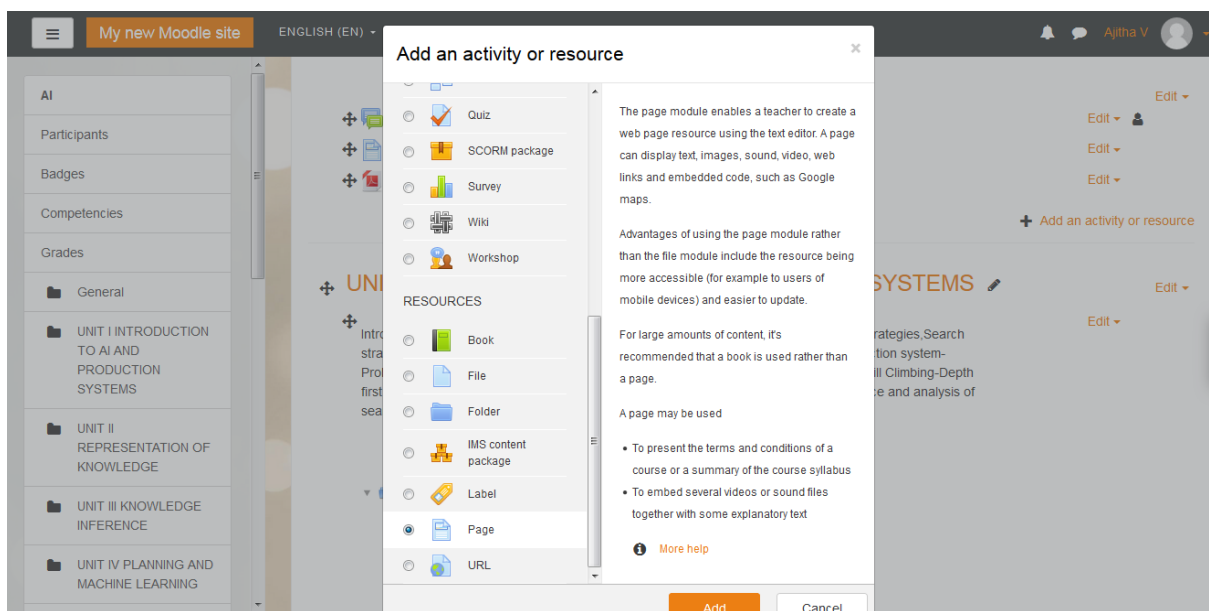
21. Click Save and Return to Course.
22. Your folder will now appear on the course page.



Resource: Folder ready for use

c) To add a Page to your course:

1. Log into Moodle.
2. Enter your course.
3. Click the Turn Editing On button.
4. Scroll down to the Topic/Week to which you intend to add the resource.
5. Click the Add an Activity or Resource link.
6. Choose Page from the list of Resources and click the Add button.

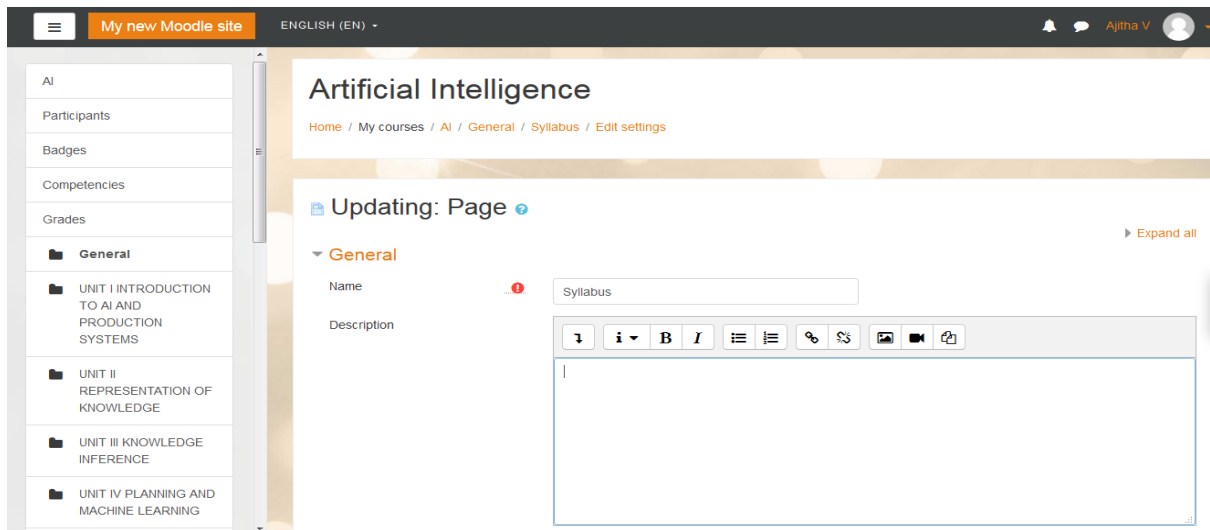


Resource: Page

Open Education Resource: Flipping the Artificial Intelligence classroom with MOODLE

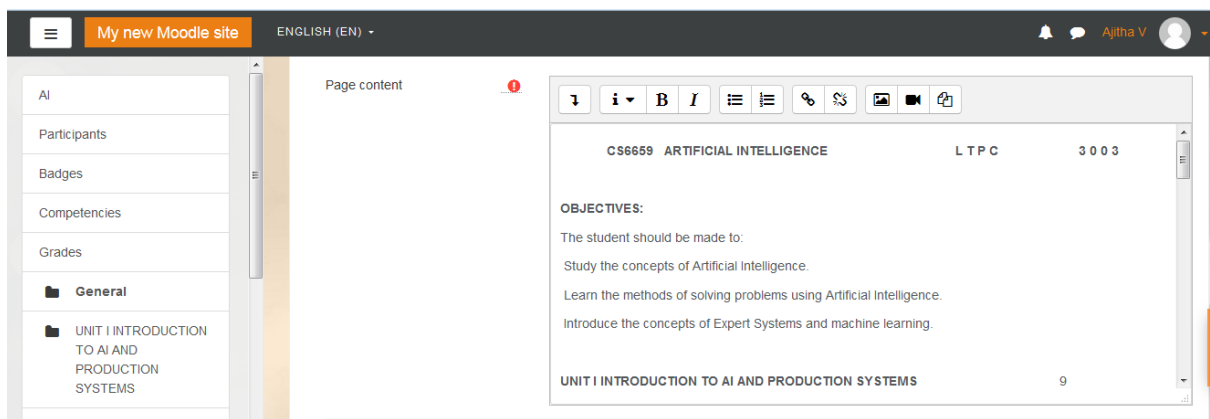
7. Key in the Name or Title of your page.

8. Scroll past the Description box to the Page Content box, the Description field is not needed.



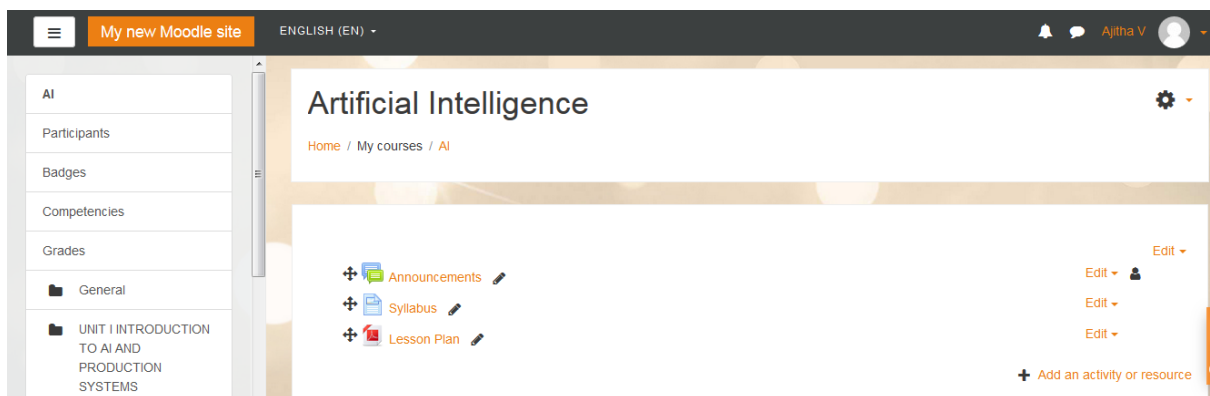
Naming the Page

9. Key or paste your information into the Page Content box.



Paste or type your information

10. Click the Save and return to course button.



The Newly Created Page

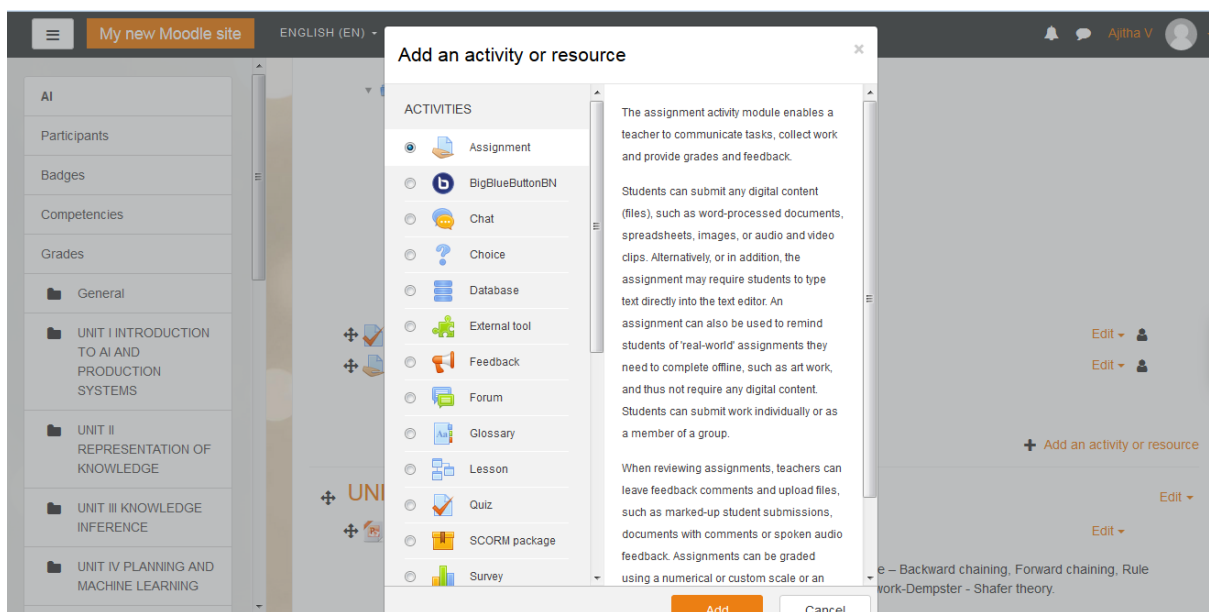
Open Education Resource: Flipping the Artificial Intelligence classroom with MOODLE

(iv) Building Activities

a) Add an Activity: Assignments

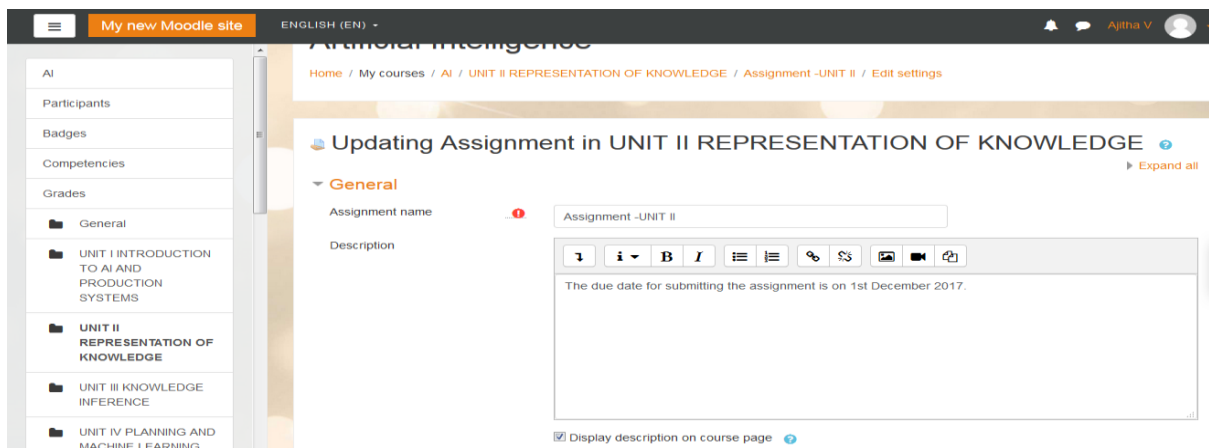
To add an Assignment to your course:

1. Log into Moodle.
2. Enter your course.
3. Click the Turn Editing On button.
4. Scroll down to the Topic/Week to which you intend to add the resource.
5. Click the "Add an Activity or Resource" link.
6. Choose Assignment from the list of Activities and click the "Add" button.



Activities: Assignment

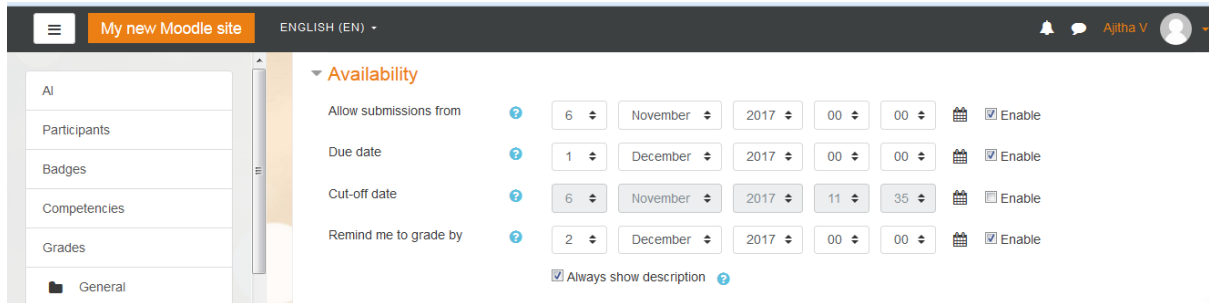
7. Type in a name for the assignment.
8. Type in a Description in the text box.



Name the Assignment

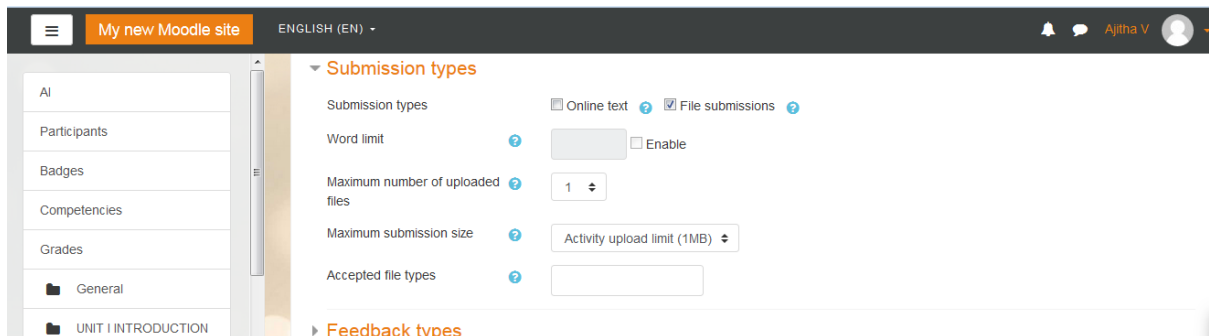
9. In the "Additional files" area you may upload any supporting files students will need for this assignment.

10. In the "Availability" section, set your choices for the dates.



Availability section: enabling and setting the Due date

11. In the Submission Types section select the desired submission types.

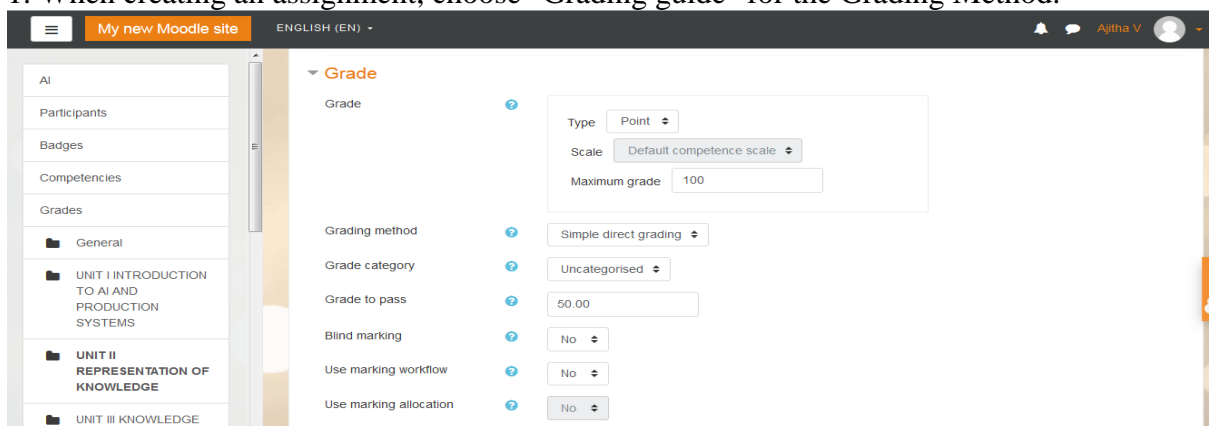


Submission Types section: Choose the desired submission option

12. When you are done click the Save Changes button. If you chose to use either a Rubric or Grading Guide you will be taken to another screen to set those up. Otherwise you will be returned to the main course page.

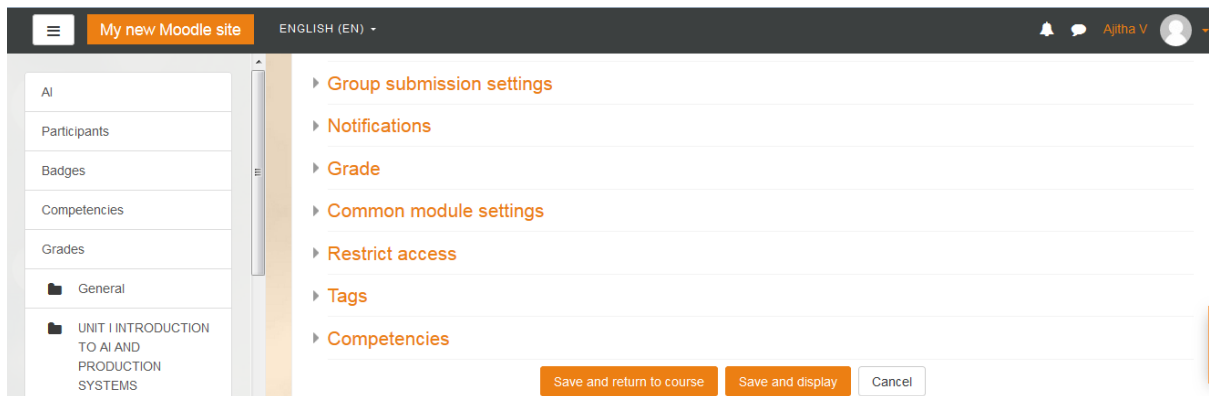
Setting up a Grading Guide

1. When creating an assignment, choose "Grading guide" for the Grading Method.



Grading Method: Grading guide

2. When you are finished setting the other assignment options, click the "Save and display" button.

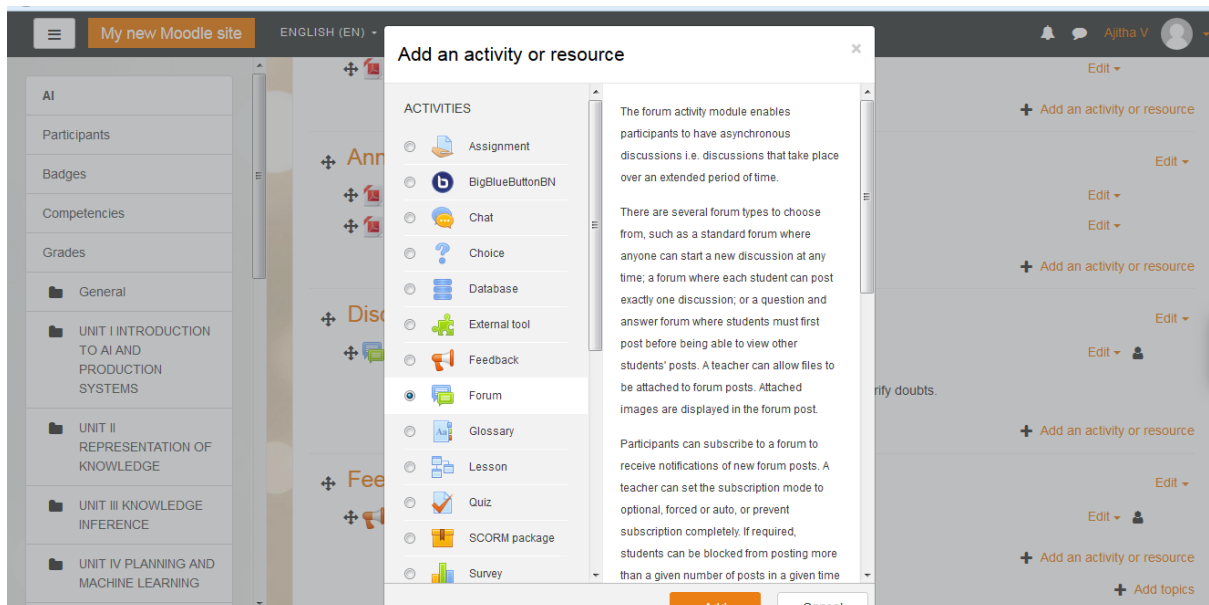


Be sure to use the "Save and display" button to proceed

b) Add an Activity: Forums

To add an Activity forum to your course:

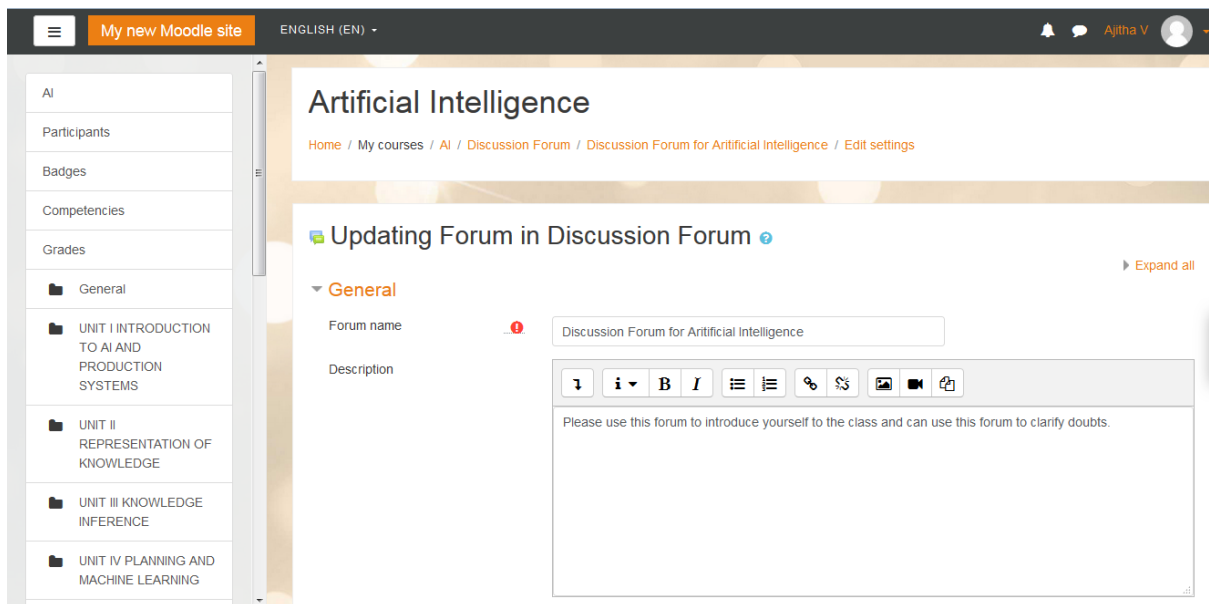
1. Log into Moodle.
2. Enter your course.
3. Click the Turn Editing On button.
4. Scroll down to the Topic/Week to which you intend to add the resource.
5. Click the "Add an Activity or Resource" link.
6. Select "Forum" from the list of Activities and click the "Add" button.



Choose Forum from the list of activities.

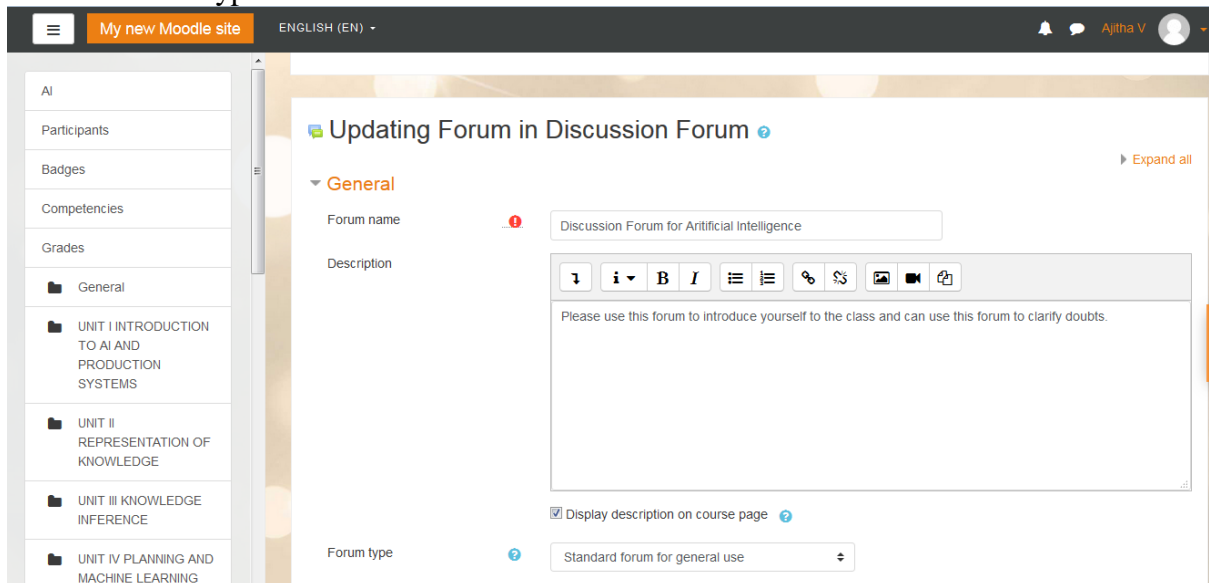
7. Wait for your screen to refresh.
8. Key a name for your forum.

9. Key an introduction to your forum. Be sure to give students specific directions to follow.

A screenshot of the Moodle interface for creating a forum. The page title is "Artificial Intelligence". The breadcrumb trail is "Home / My courses / AI / Discussion Forum / Discussion Forum for Artificial Intelligence / Edit settings". The main heading is "Updating Forum in Discussion Forum". Under the "General" section, the "Forum name" is "Discussion Forum for Artificial Intelligence". The "Description" field contains the text: "Please use this forum to introduce yourself to the class and can use this forum to clarify doubts." The "Forum type" is set to "Standard forum for general use".

Name your Forum and use the description field to give instructions and/or a discussion prompt to the students.

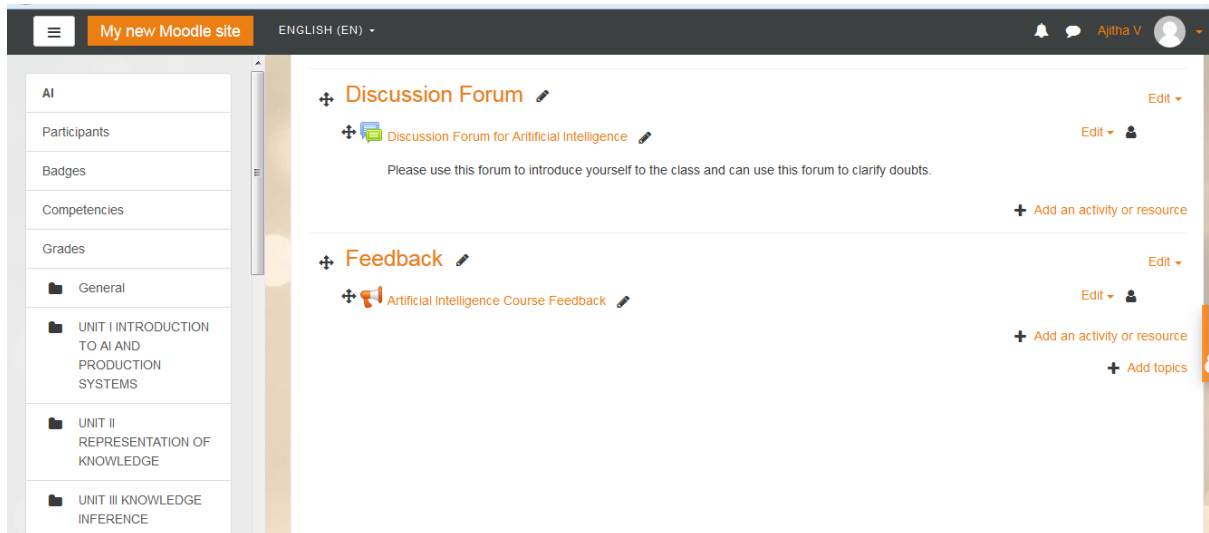
10. Choose the type of forum.

A screenshot of the Moodle interface for creating a forum, similar to the previous one. The "Forum name" is "Discussion Forum for Artificial Intelligence". The "Description" field contains the text: "Please use this forum to introduce yourself to the class and can use this forum to clarify doubts." The "Display description on course page" checkbox is checked. The "Forum type" is set to "Standard forum for general use".

Select Standard forum for general use from the Forum Type drop down box.

11. Set your subscription and tracking choices.
12. Set the Ratings options.
13. Choose the desired grade scale from the drop down.
14. Set date ranges for rating, if desired.
15. Click the Save and Return to Course button.

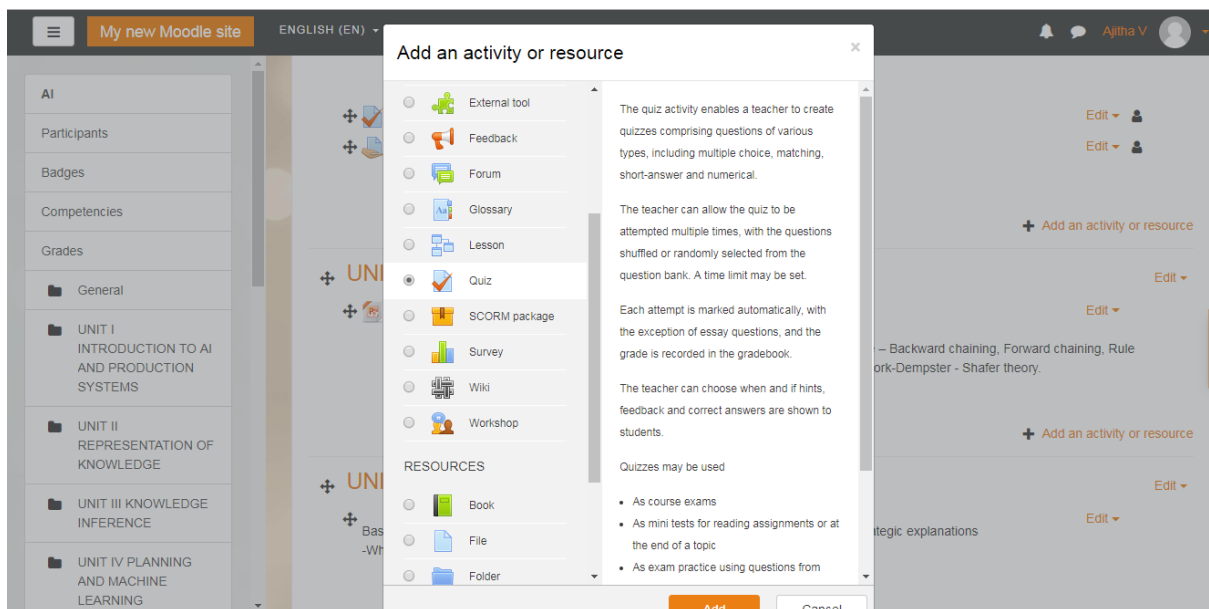
Your forum has now been created.



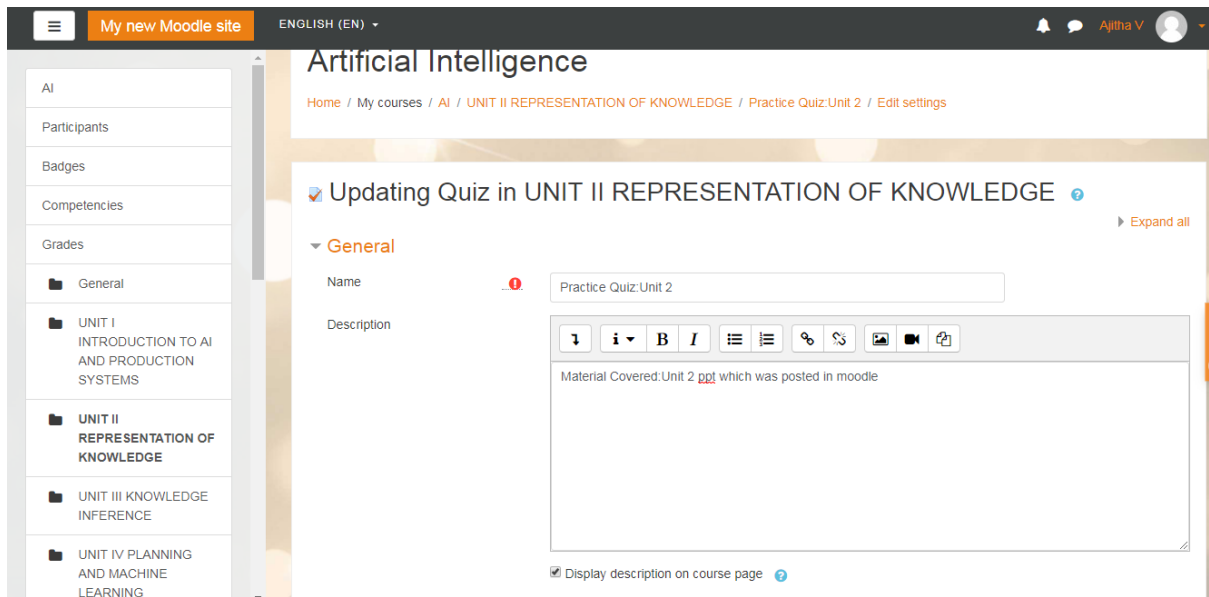
c)Add an Activity: Quiz

To add a Quiz to your course:

1. Log into Moodle.
2. Enter your course.
3. Click the Turn Editing On button.
4. Scroll down to the Topic/Week to which you intend to add the resource.
5. Click the Add an Activity or Resource link.
6. Choose Quiz from the list.



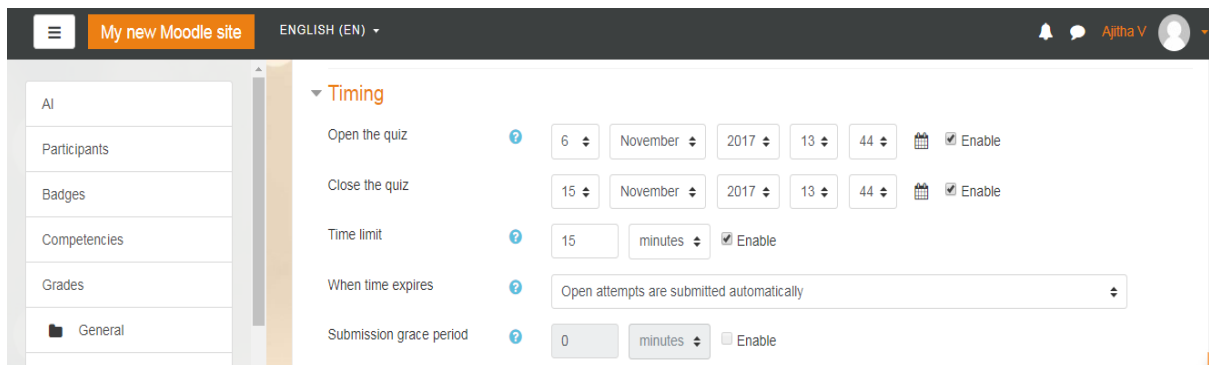
7. Wait for the Quiz screen to appear.
8. Key the name of your quiz.
9. Key a brief description of your quiz.



Note: There are many options available when creating a quiz, allowing for many different ways to give quizzes and tests. For details visit:
<https://www.youtube.com/watch?v=QQ94dawEuGo>

Timing

10. Set the Open and Close dates for your quiz. (hint, click the enable box first, then choose your dates)
11. Set a time limit for your quiz, if desired.



The image above displays the Timing section of the quiz with the correct settings

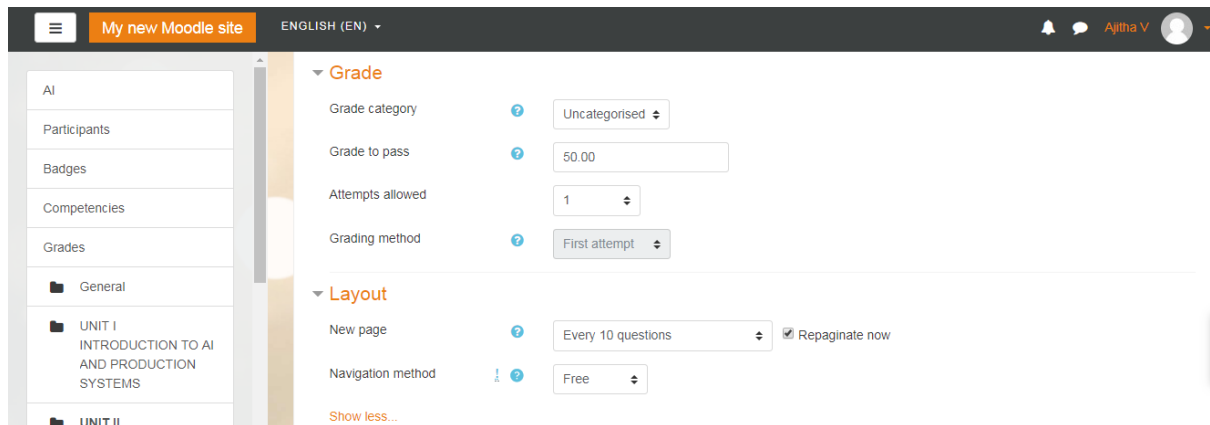
Grade

12. Set the number of attempts allowed.
13. Set your preference for Grade Category (if applicable).
14. Set your preference for Grading Method. This is only applicable if you allowed more than one attempt on the quiz.

Layout

15. Set your preference for Question order.

16. Set your preference for new page.

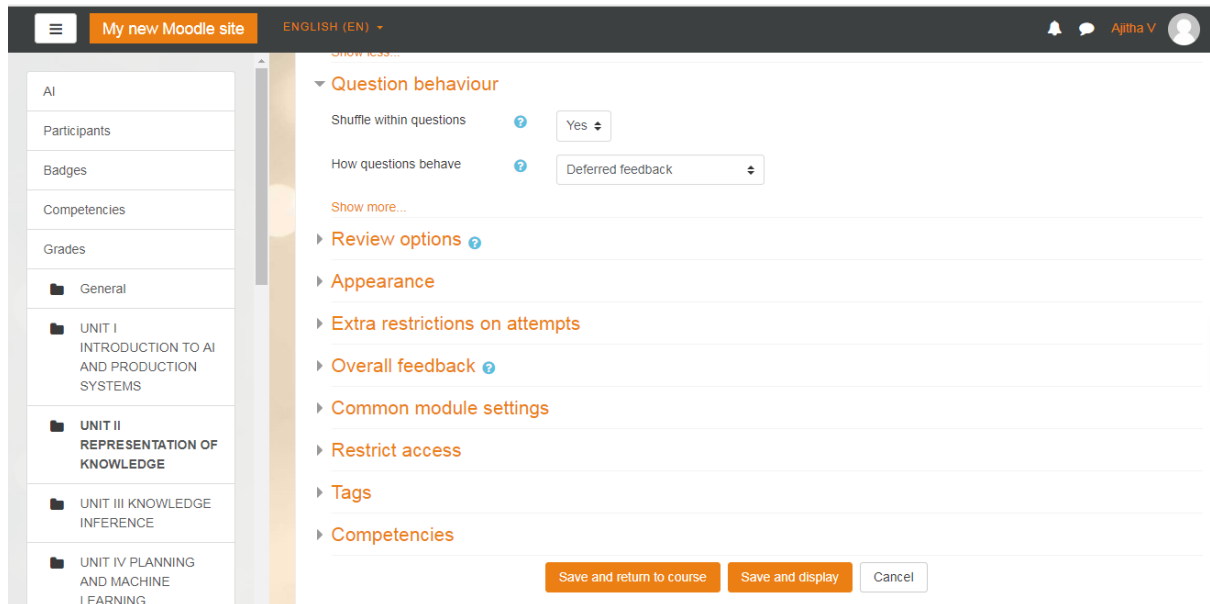


The image above displays the Grade and Layout section of the quiz settings. Be sure to allow only one attempt.

Question Behavior

17. Set your preference for Shuffle within questions.

18. Set your preference for How questions behave.



Review Options

19. Set your preferences for the Student Review options.

20. Set your preferences for the options in the Display section.

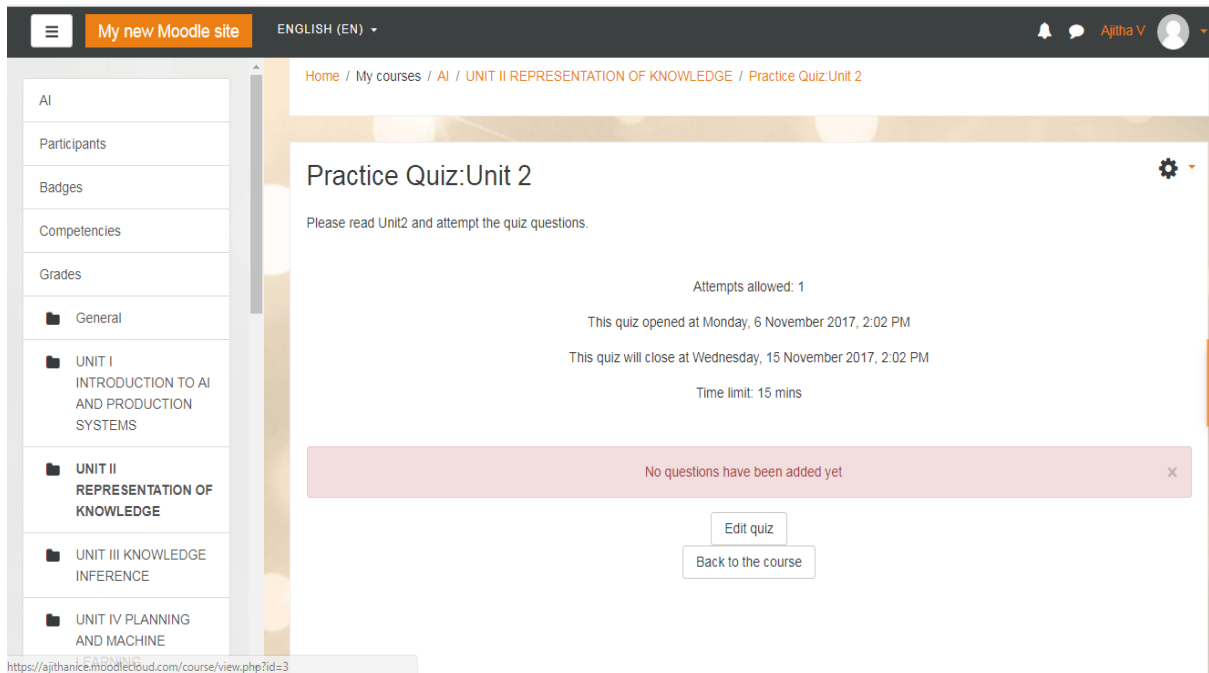
Overall Feedback

21. Program the grade levels and appropriate feedback for those grades if desired.

22. Click the Save and Display button.

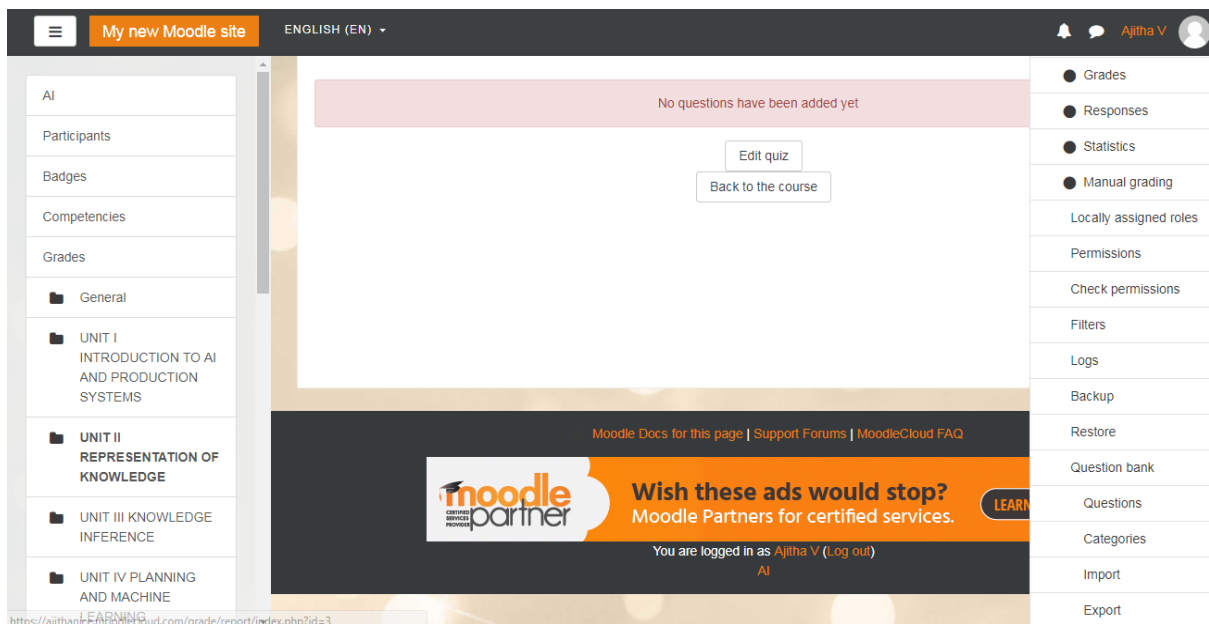
Adding Questions to your Quiz

23. Click the Edit Quiz button.



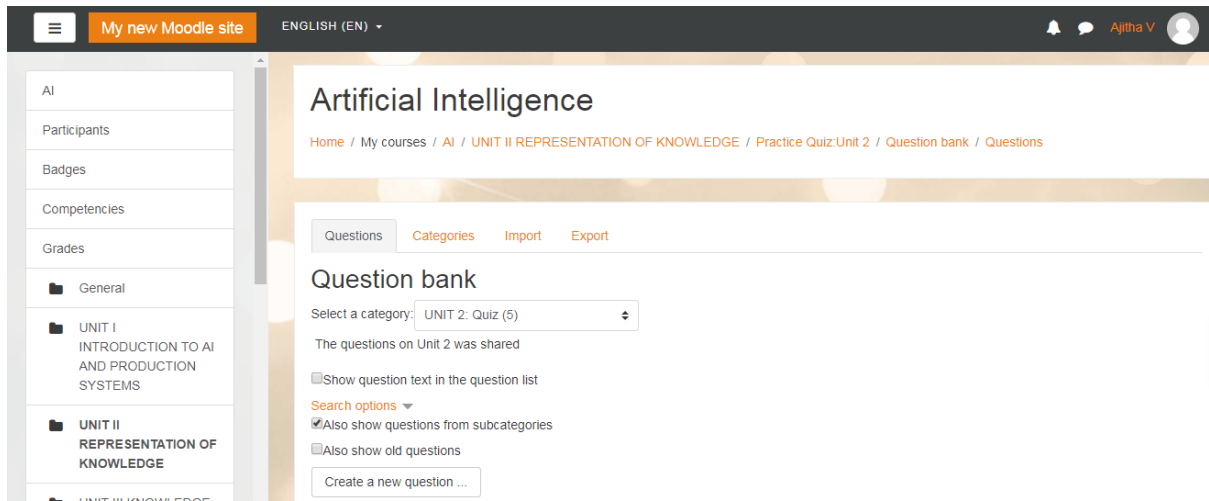
The screenshot shows a Moodle course page for 'Practice Quiz: Unit 2'. The page title is 'Practice Quiz: Unit 2' and the content area says 'Please read Unit2 and attempt the quiz questions.' Below this, it indicates 'Attempts allowed: 1', 'This quiz opened at Monday, 6 November 2017, 2:02 PM', and 'This quiz will close at Wednesday, 15 November 2017, 2:02 PM'. The time limit is '15 mins'. A red message box states 'No questions have been added yet'. There are two buttons: 'Edit quiz' and 'Back to the course'. The left sidebar shows a course structure with units: UNIT I INTRODUCTION TO AI AND PRODUCTION SYSTEMS, UNIT II REPRESENTATION OF KNOWLEDGE (selected), UNIT III KNOWLEDGE INFERENCE, and UNIT IV PLANNING AND MACHINE LEARNING. The URL at the bottom is https://ajithanice.moodlecloud.com/course/view.php?id=3.

24. If necessary, click the Question Bank. This is located on the right hand side of the screen.



The screenshot shows the same Moodle course page as above, but with the 'Question bank' menu open on the right side. The menu items are: Grades, Responses, Statistics, Manual grading, Locally assigned roles, Permissions, Check permissions, Filters, Logs, Backup, Restore, Question bank, Questions, Categories, Import, and Export. The 'Question bank' item is highlighted. The 'Edit quiz' and 'Back to the course' buttons are still visible. At the bottom, there is a Moodle Partner banner with the text 'Wish these ads would stop? Moodle Partners for certified services.' and 'You are logged in as Ajitha V (Log out)'. The URL at the bottom is https://ajithanice.moodlecloud.com/grade/report/index.php?id=3.

25. Choose the correct category from the drop down list.



The screenshot shows the Moodle course page for 'Artificial Intelligence'. The breadcrumb trail is: Home / My courses / AI / UNIT II REPRESENTATION OF KNOWLEDGE / Practice Quiz: Unit 2 / Question bank / Questions. The 'Question bank' section is active, showing a dropdown menu for 'Select a category:' with 'UNIT 2: Quiz (5)' selected. Below the dropdown, it says 'The questions on Unit 2 was shared'. There are checkboxes for 'Show question text in the question list', 'Also show questions from subcategories' (checked), and 'Also show old questions'. A 'Create a new question ...' button is at the bottom.

26. Check the questions from the list that you'd like to add to the quiz.

27. Click the Add to Quiz button.

28. Wait until your screen refreshes.

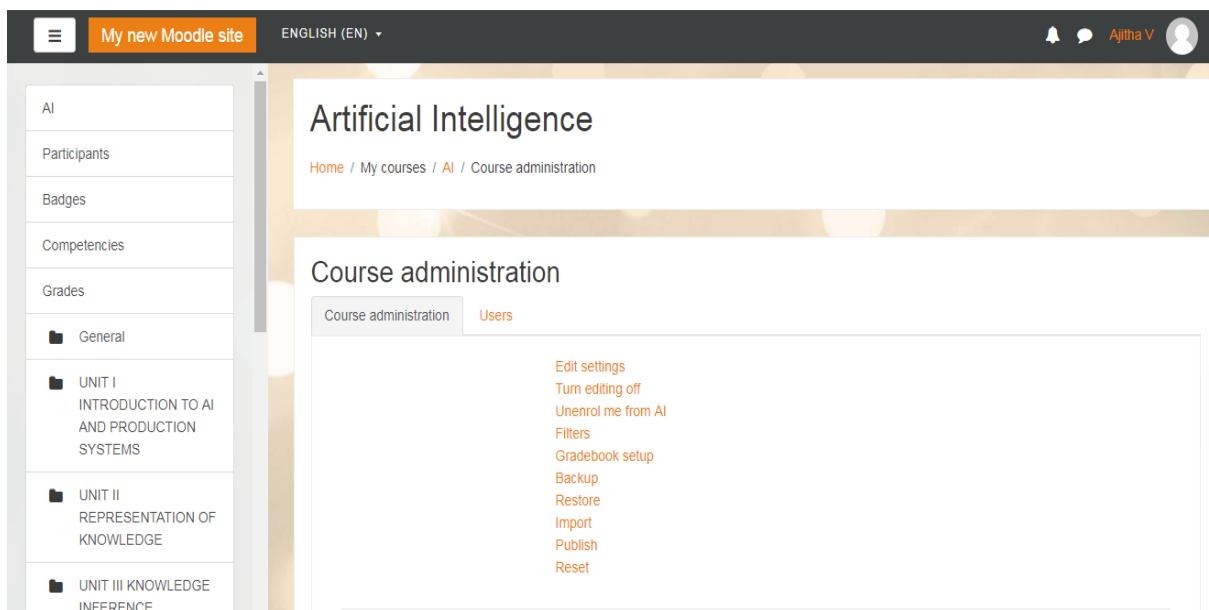
29. Repeat this process until you have added all of the questions to your quiz.

30. When you are done with your quiz, be sure to click the Save Changes button.

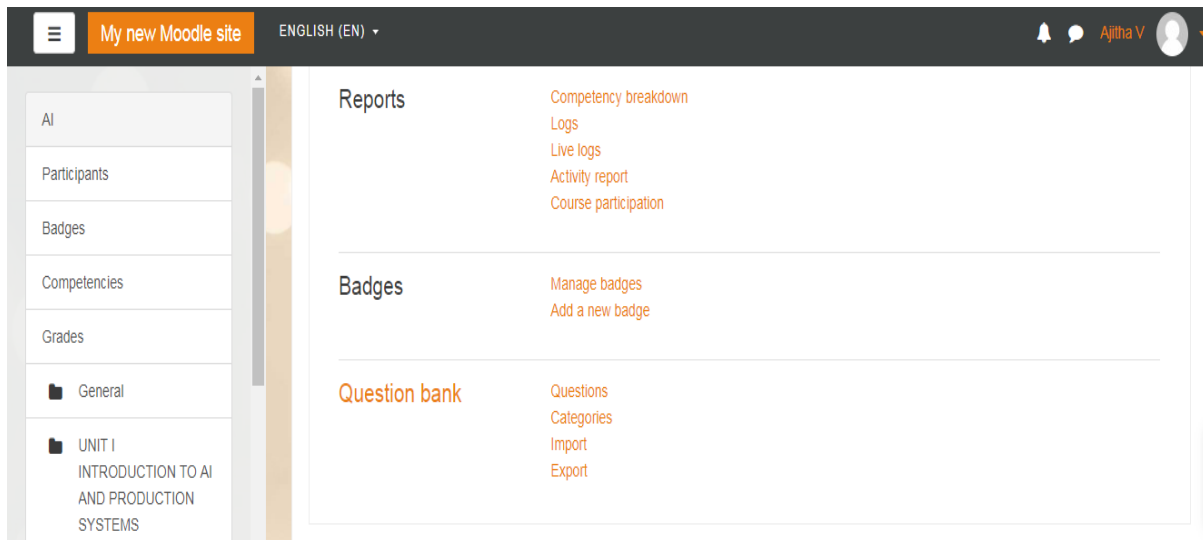
Creating Quiz Questions

To manually add questions to your course:

1. Log into Moodle.
2. Enter your course.
3. Click the Question Bank link in the Course Administration block.

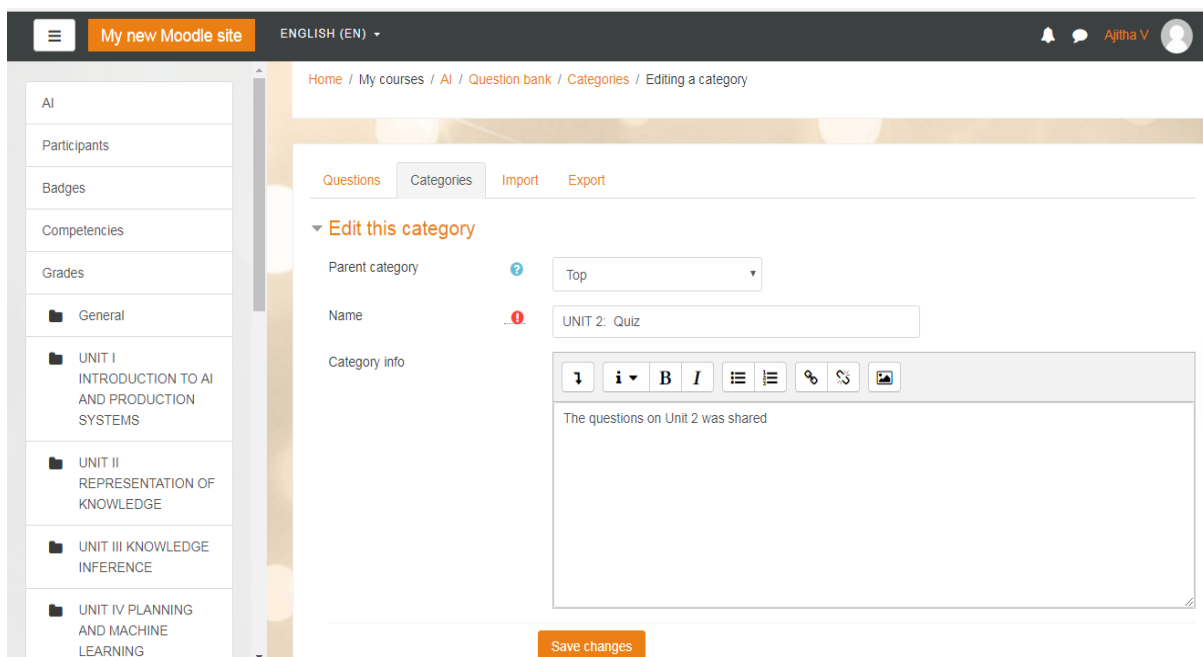


The screenshot shows the Moodle course page for 'Artificial Intelligence' in the 'Course administration' section. The breadcrumb trail is: Home / My courses / AI / Course administration. The 'Course administration' section is active, showing a list of links: Edit settings, Turn editing off, Unenrol me from AI, Filters, Gradebook setup, Backup, Restore, Import, Publish, and Reset.

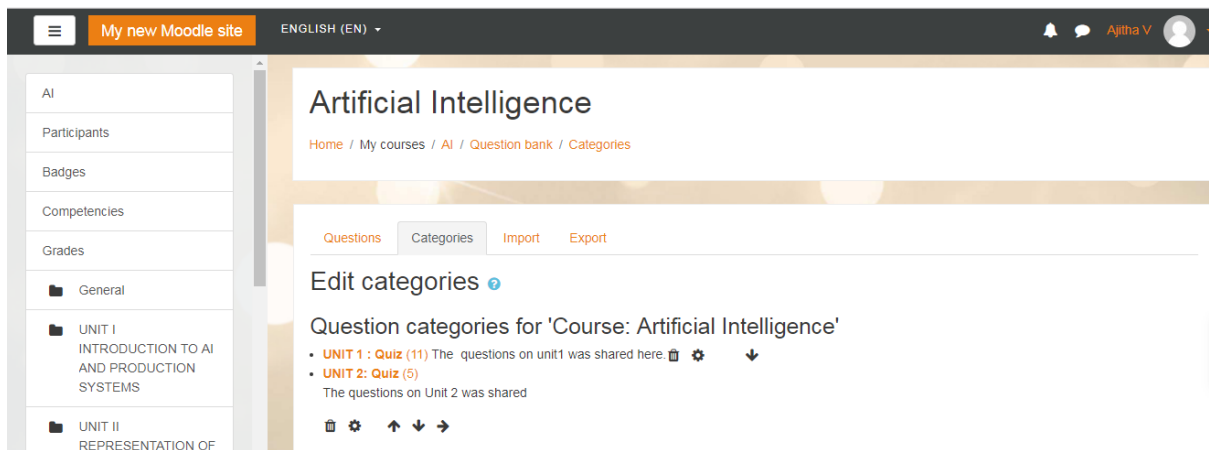


Before adding questions you should create categories to organize them.

4. Click the Categories link from the Question Bank.
5. Locate the Add Category section of the page.
6. Select the parent category (leave at the default unless you need to create sub categories)
7. Key the name and description (optional) for your first category and click the Add category button.

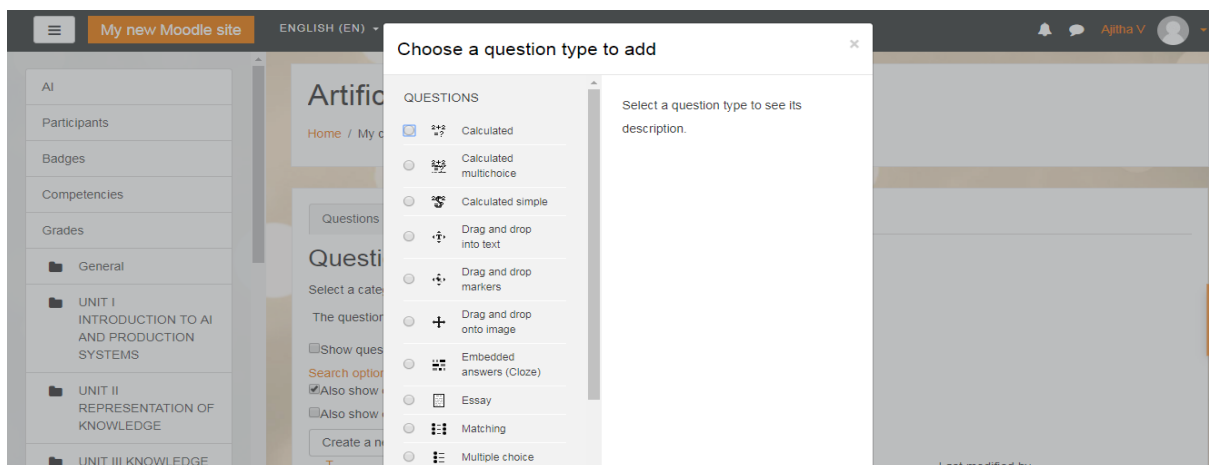


8. Create any additional categories or sub-categories you need. Now that you have your categories in place, we can begin adding questions.
9. From the Category drop down, select the category to which you'll be adding your questions.



10. Click the Create a new question button.

11. From the Create New Question screen, select the type of question you'd like to add.



12. Click the Next button.

13. Wait while your screen reloads.

14. Key a name for your question.

15. Key (or paste) the actual wording of the question into the Question Text box.

16. Choose the default mark (point value) for this question.

17. Key any general feedback you'd like students to see about this question.

18. Set your Shuffle choices preference.

19. Key the answer choices & options.

20. Click the Blanks for 3 more choices button if you need more answer choices.

21. Key any overall feedback for this question if desired.

22. Click the Save Changes button at the bottom of the screen.

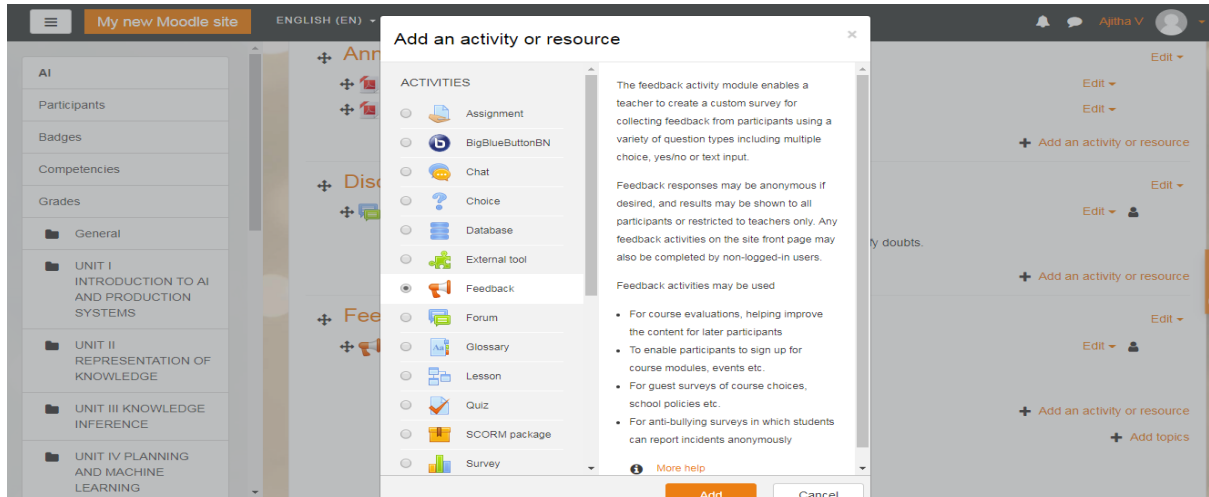
You should now see your question in the list.

23. Repeat this process until you have added all of the questions for this category.

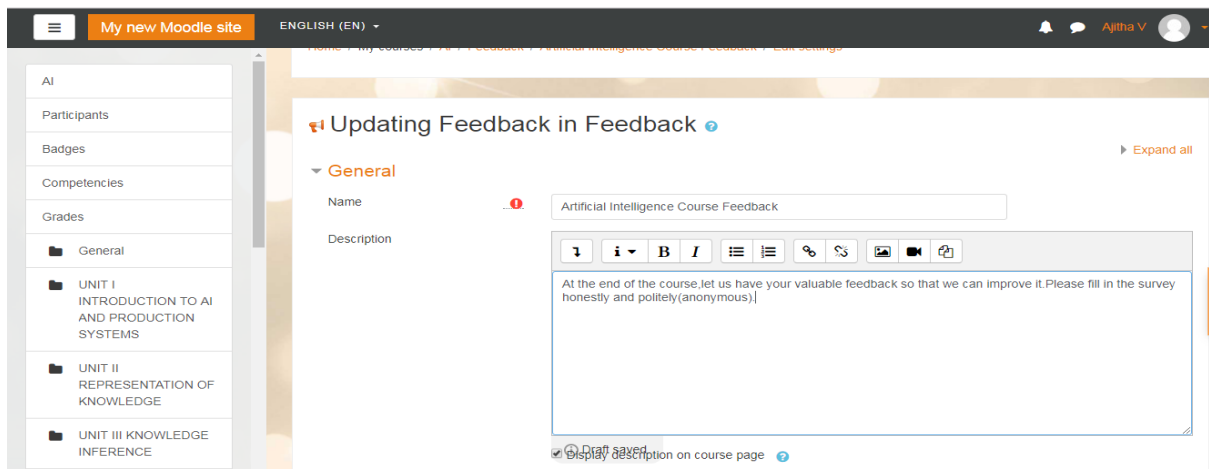
d)Add an Activity:Feedback

To add a feedback to your course:

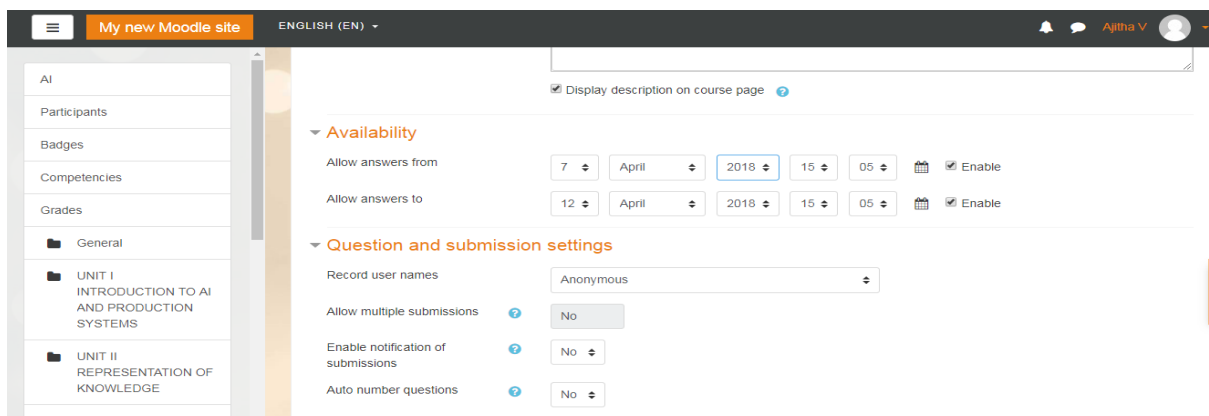
- 1.Click the Turn editing on button.
- 2.Select "Feedback" from the Add an activity or resource drop-down link.



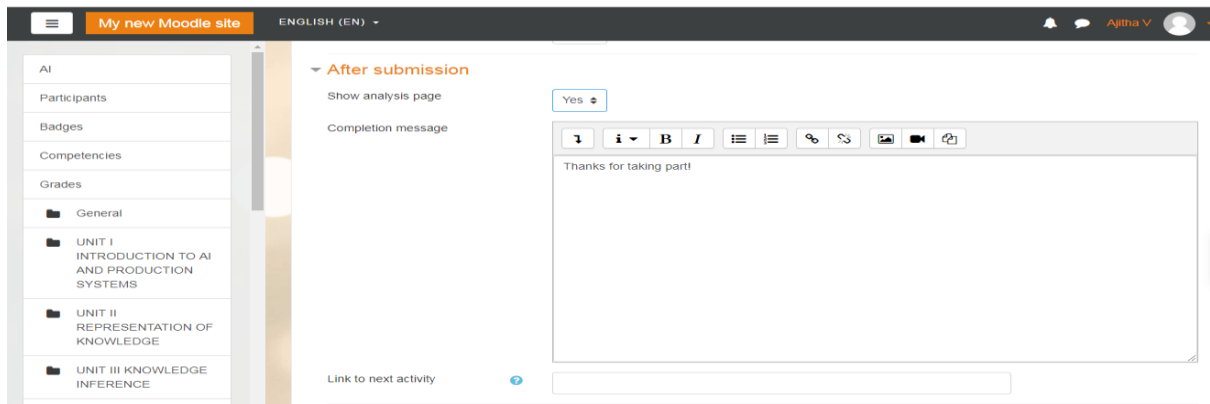
- 3.On Adding a new feedback page, enter a name of the activity.
- 4.Add a description for your Feedback instance in the descriptive field.



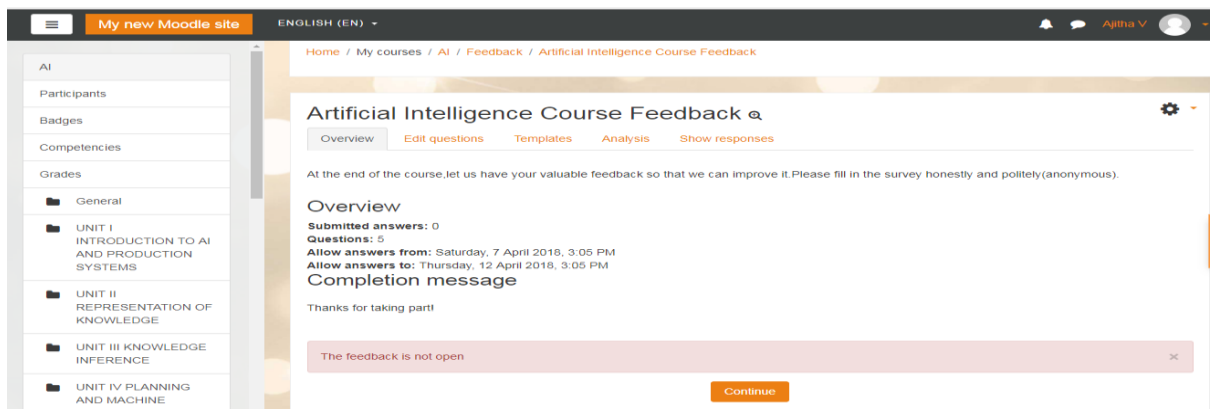
- 5.In the "Availability" section you can choose the period when users can complete feedback.



6. In the "After Submission" section you can choose whether the summary results are to be displayed to teachers and also we can present the users with a personalized message after answering the questions.

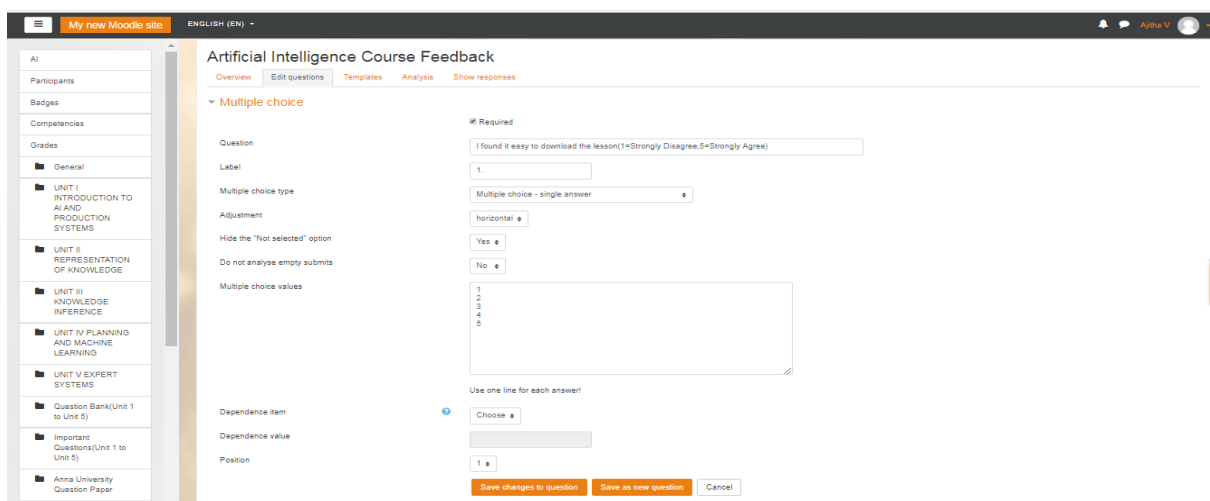


7. Click the Save and display button. You will see the below image on the screen.

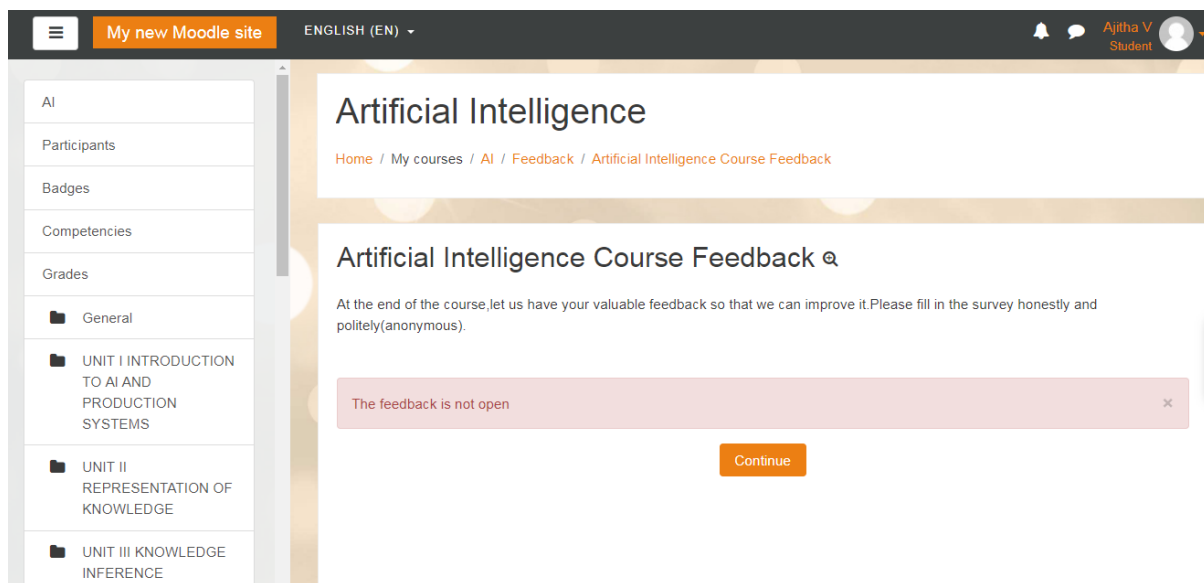


Building Feedback by adding questions:

8. Click the Edit questions tab and Select the type of question from the drop down list. Add your question details and click 'Save question'.



Viewing a feedback activity:



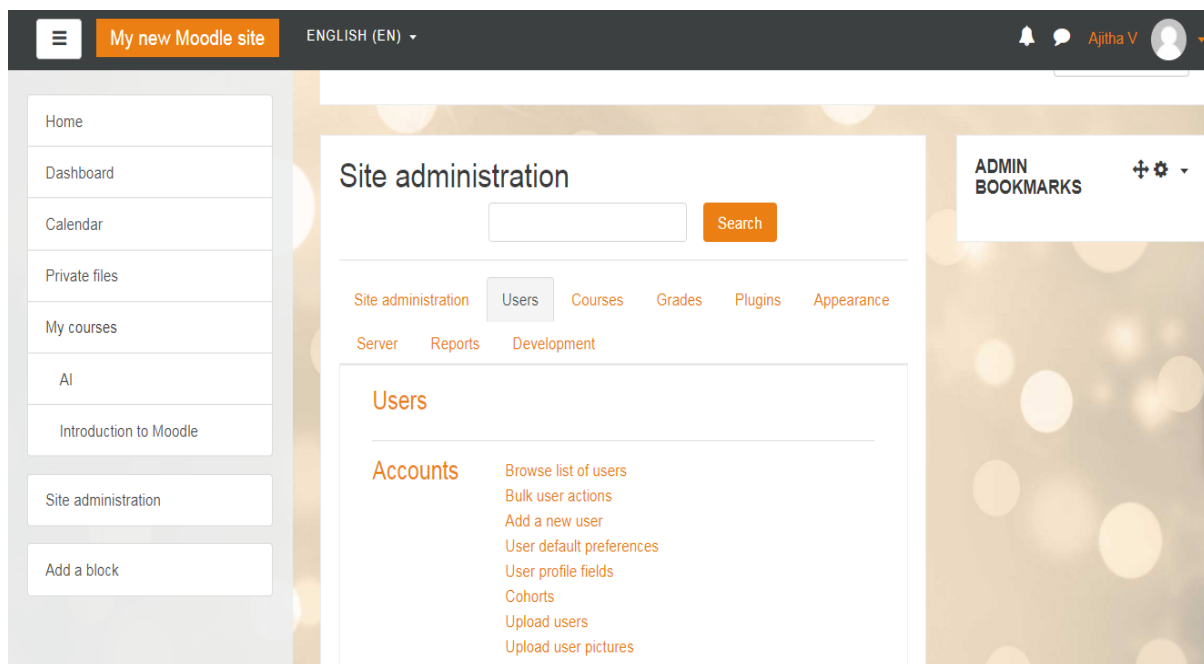
The screenshot shows a Moodle course page for 'Artificial Intelligence'. The page title is 'Artificial Intelligence Course Feedback'. The breadcrumb trail is 'Home / My courses / AI / Feedback / Artificial Intelligence Course Feedback'. The main content area contains a message: 'At the end of the course, let us have your valuable feedback so that we can improve it. Please fill in the survey honestly and politely (anonymous)'. Below the message is a red box with the text 'The feedback is not open' and a 'Continue' button.

(v) Managing the class:

a) Assigning Roles in Artificial Intelligence Course:

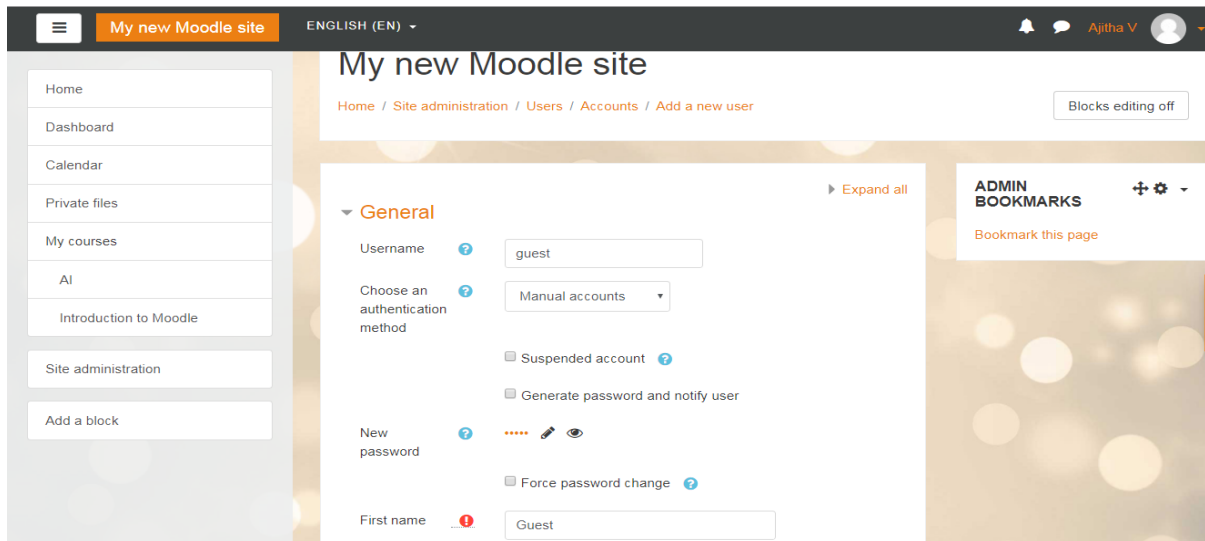
To assign a user the role of student:

1. Click Site Administration -> Users -> Add a new user.

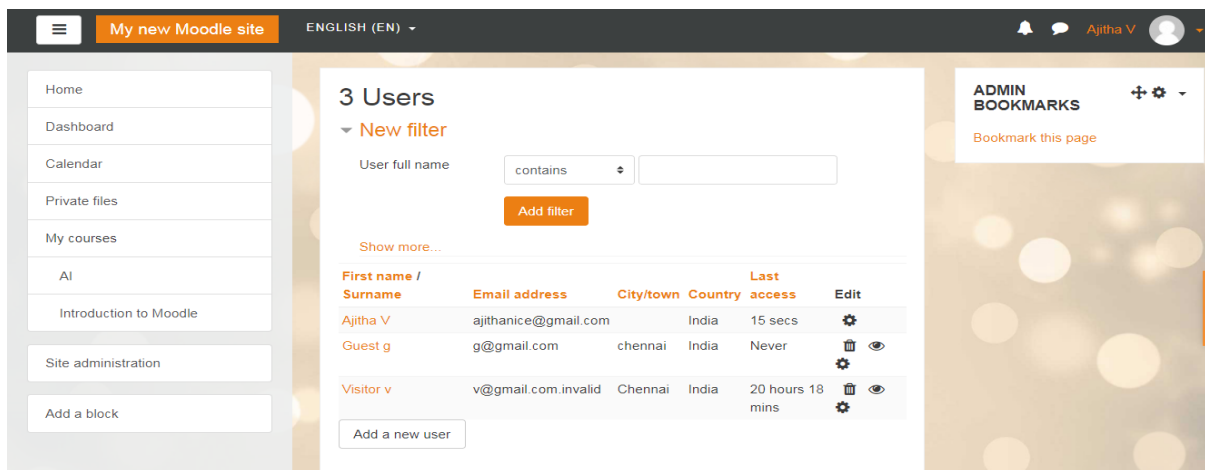


The screenshot shows the Moodle Site Administration page. The breadcrumb trail is 'Site administration / Users'. The 'Users' section is active, and the 'Accounts' sub-section is selected. The 'Accounts' sub-section contains the following links: 'Browse list of users', 'Bulk user actions', 'Add a new user', 'User default preferences', 'User profile fields', 'Cohorts', 'Upload users', and 'Upload user pictures'.

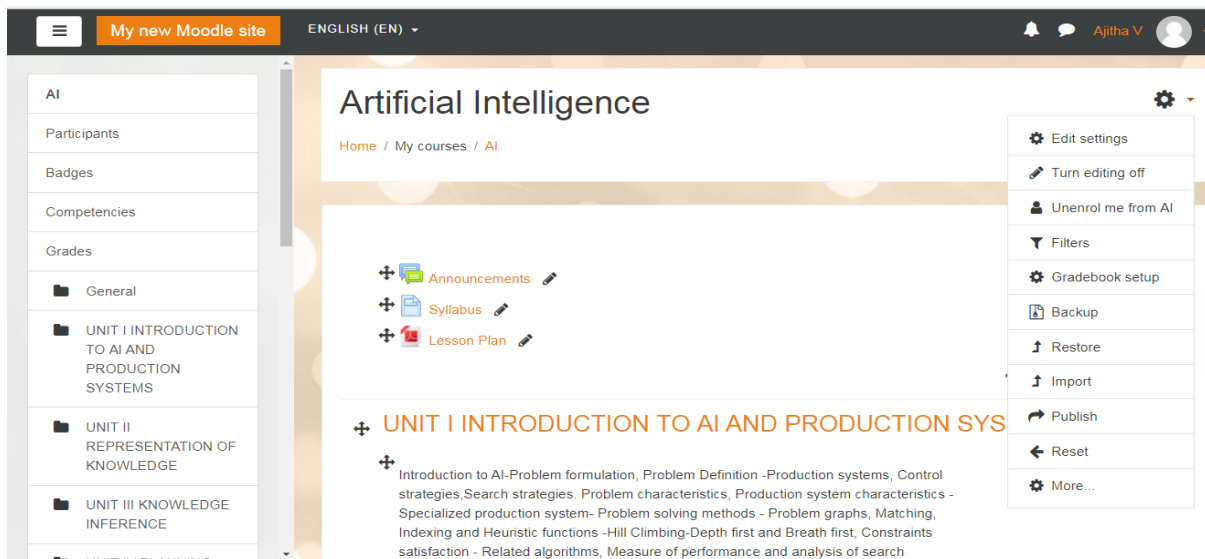
2.It will display the below details as shown in the image..



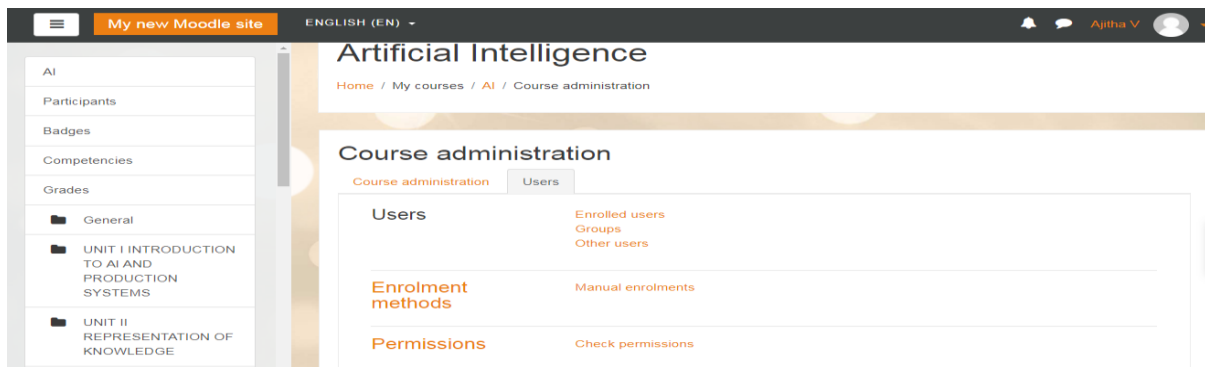
3.Click Create user at the bottom.



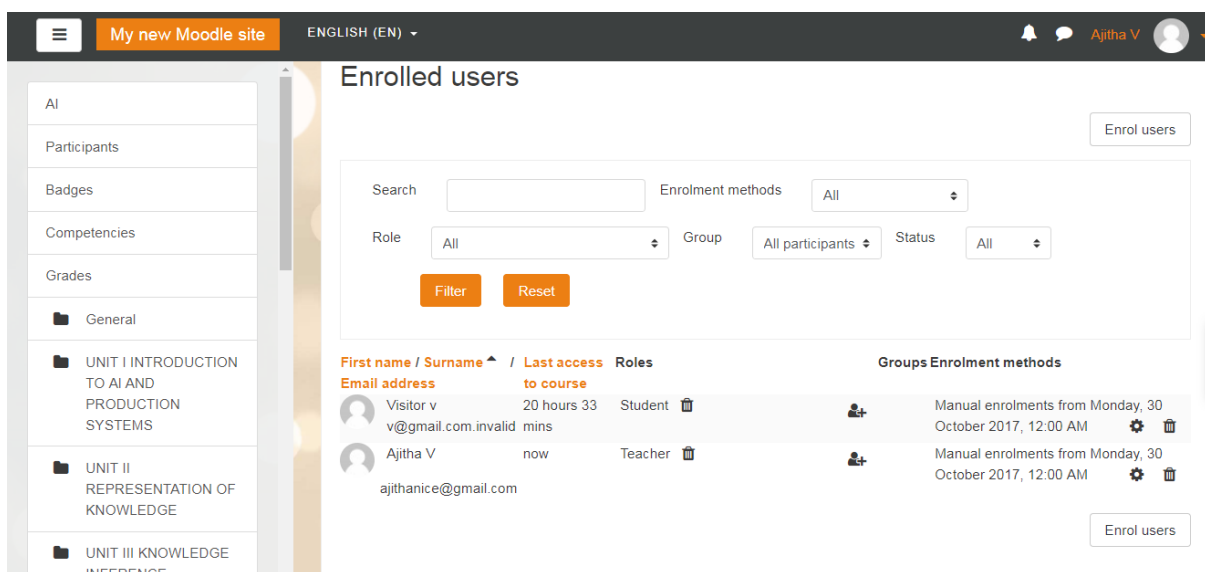
4.To enroll the user guest to the course, click the drop down button at the top of the course and click more.



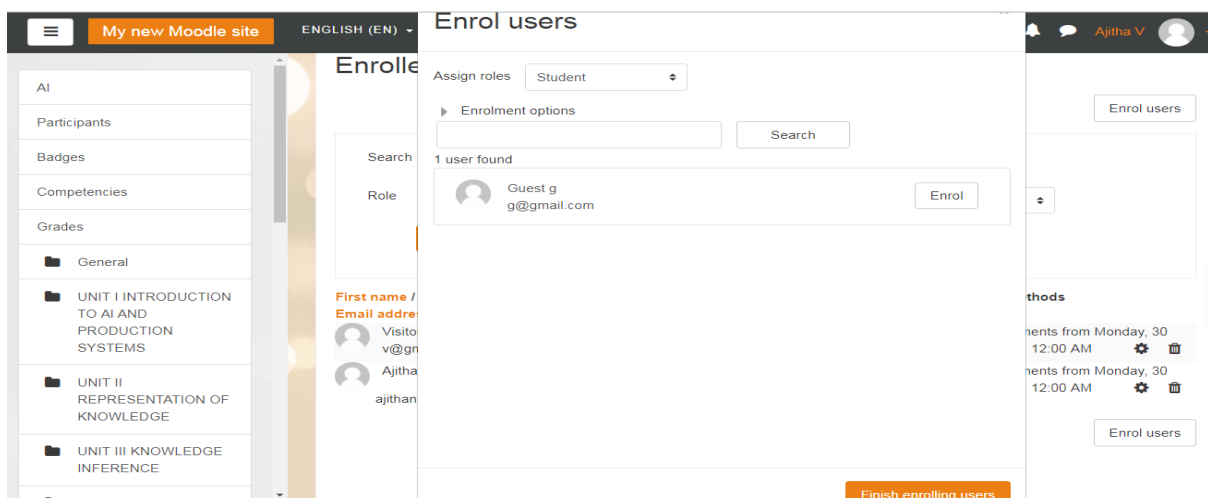
5. The following screen gets displayed.



6. Click users tab and click Enrolled users.



7. In the above image, by clicking Enrol users button, we will be directed to a new page which displays the below details on the screen. Now, click enrol and finish enrolling the users.



8. Now, it displays the list of enrolled users for the Artificial Intelligence course. Similarly, one can add more number of students by clicking enrol users button.

Enrolled users

Search: Enrolment methods: All

Role: All Group: All participants Status: All

[Filter](#) [Reset](#)

First name / Surname	Last access to course	Roles	Groups	Enrolment methods
Guest g g@gmail.com	Never	Student		Manual enrolments from Wednesday, 8 November 2017, 12:00 AM
Visitor v v@gmail.com.invalid	20 hours 38 mins	Student		Manual enrolments from Monday, 30 October 2017, 12:00 AM
Ajitha V ajithanice@gmail.com	4 secs	Teacher		Manual enrolments from Monday, 30 October 2017, 12:00 AM

b) Using Course Reports

1. Click the Reports link in the Administration block and choose the desired report from the drop down list.

Course administration

Course administration Users

Reports

- Competency breakdown
- Logs
- Live logs
- Activity report
- Course participation

Example of LiveLogs Report

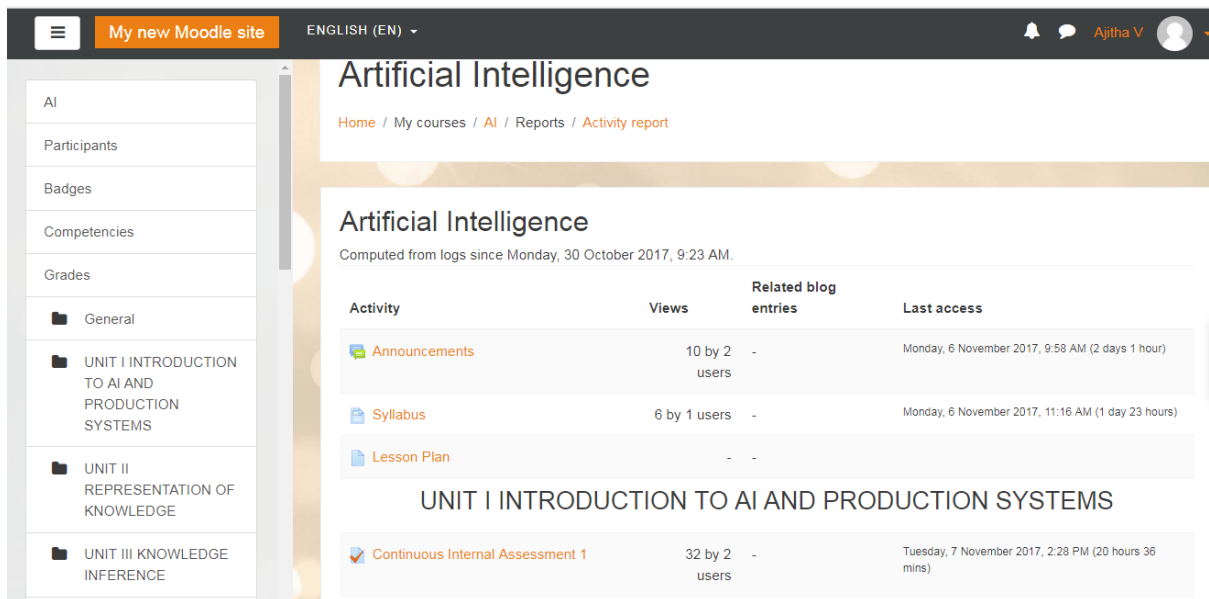
Artificial Intelligence: Live logs from the past hour
(Updates every 60 seconds)

Home / My courses / AI / Reports / Live logs

[Pause live updates](#)

Time	User full name	Affected user	Event context	Component	Event name	Description	Origin	IP address
8 Nov, 11:02	Ajitha V	-	Course: Artificial Intelligence	Activity report	Activity report viewed	The user with id '2' viewed the outline activity report for the course with id '3'.	web	14.139.187.225
8 Nov, 11:01	Ajitha V	-	Course: Artificial Intelligence	Activity report	Activity report viewed	The user with id '2' viewed the outline activity report for the course with id '3'.	web	14.139.187.225
8 Nov, 10:52	Ajitha V	-	Course: Artificial Intelligence	Logs	Log report viewed	The user with id '2' viewed the log report for the course with id '3'.	web	14.139.187.225

Example of Activity Report



The screenshot shows the Moodle interface for an activity report. The top navigation bar includes 'My new Moodle site', 'ENGLISH (EN)', and a user profile for 'Ajitha V'. The left sidebar contains a course menu with categories like 'General', 'UNIT I INTRODUCTION TO AI AND PRODUCTION SYSTEMS', 'UNIT II REPRESENTATION OF KNOWLEDGE', and 'UNIT III KNOWLEDGE INFERENCE'. The main content area is titled 'Artificial Intelligence' and shows a table of activity reports. The table has columns for 'Activity', 'Views', 'Related blog entries', and 'Last access'. The activities listed are 'Announcements', 'Syllabus', 'Lesson Plan', and 'Continuous Internal Assessment 1'. Below the table, the unit title 'UNIT I INTRODUCTION TO AI AND PRODUCTION SYSTEMS' is displayed.

Activity	Views	Related blog entries	Last access
Announcements	10 by 2 users	-	Monday, 6 November 2017, 9:58 AM (2 days 1 hour)
Syllabus	6 by 1 users	-	Monday, 6 November 2017, 11:16 AM (1 day 23 hours)
Lesson Plan	-	-	

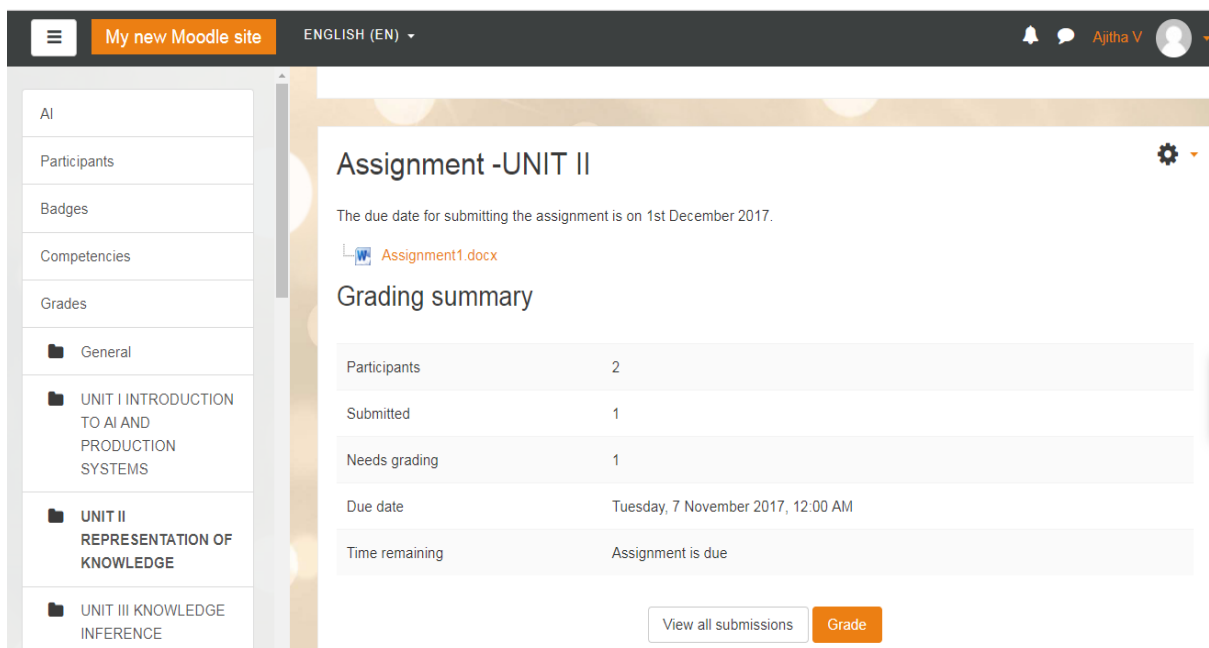
UNIT I INTRODUCTION TO AI AND PRODUCTION SYSTEMS

Continuous Internal Assessment 1	32 by 2 users	-	Tuesday, 7 November 2017, 2:28 PM (20 hours 36 mins)
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c) Grading

To grade assignments

1. Log into Moodle.
2. Enter your course.
3. Click the name of the assignment you'd like to grade.
4. The assignment will be displayed on the screen.
5. Click the View/grade all submissions link.



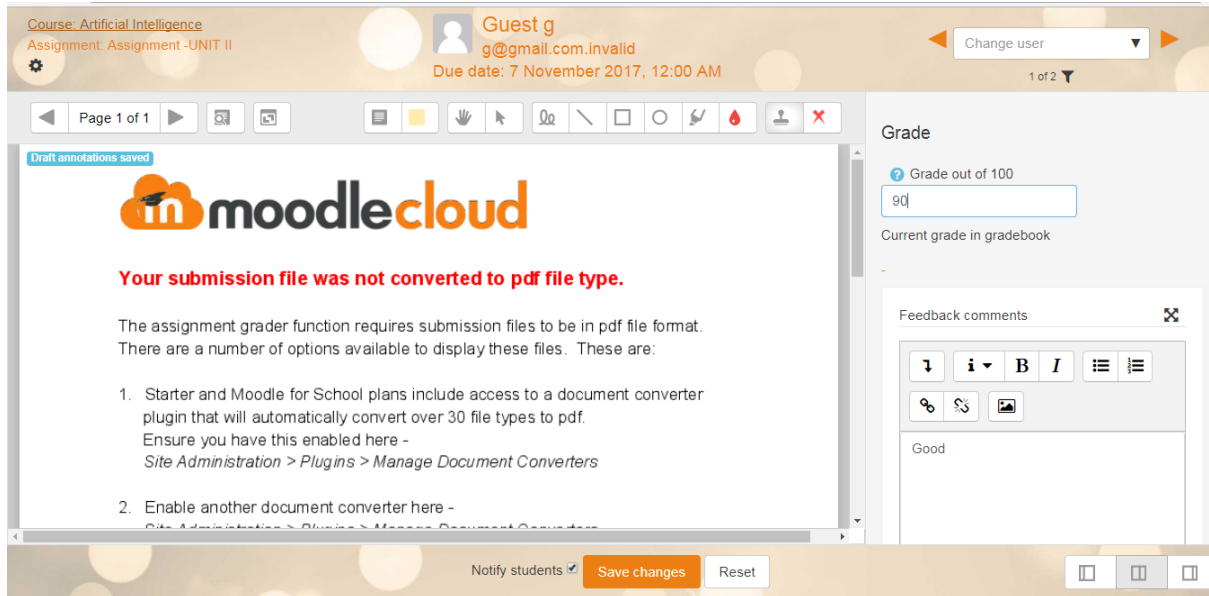
The screenshot shows the Moodle interface for an assignment grading summary. The top navigation bar is the same as in the previous screenshot. The left sidebar is also the same. The main content area is titled 'Assignment -UNIT II' and shows the due date for submitting the assignment is on 1st December 2017. Below this, there is a link to 'Assignment1.docx'. The 'Grading summary' section contains a table with the following data:

Participants	2
Submitted	1
Needs grading	1
Due date	Tuesday, 7 November 2017, 12:00 AM
Time remaining	Assignment is due

At the bottom of the page, there are two buttons: 'View all submissions' and 'Grade'.

6. Click the student's file to view their work.

7. Choose the grade for the assignment.
8. Leave a comment for the student.
9. Upload a file back to the student (if desired).
10. Click the Save and Show Next button to proceed to the next student.

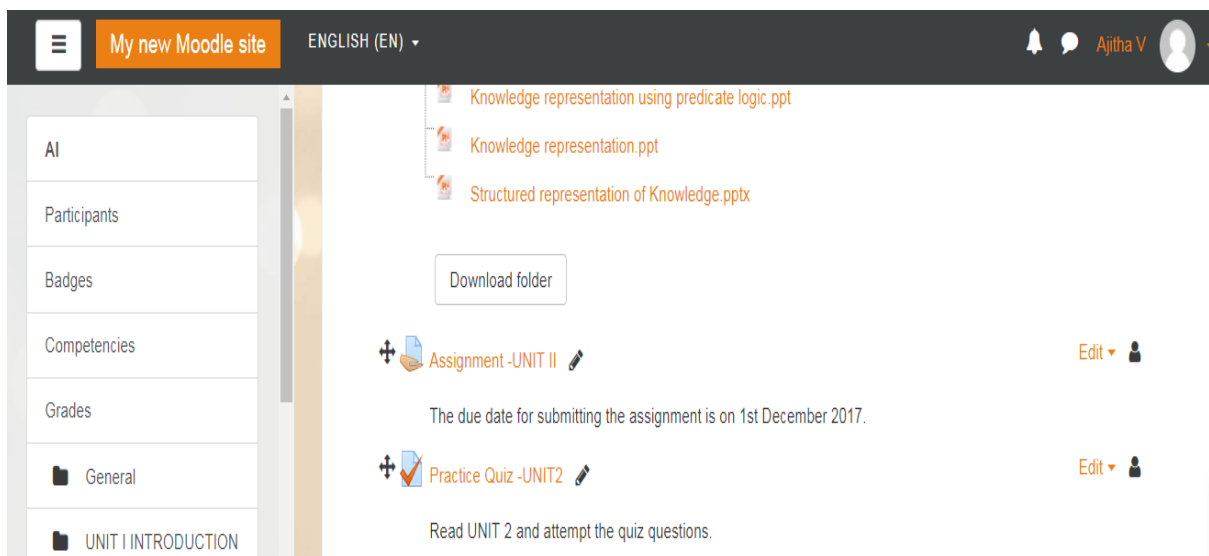


12. Repeat until all student's assignments are graded.

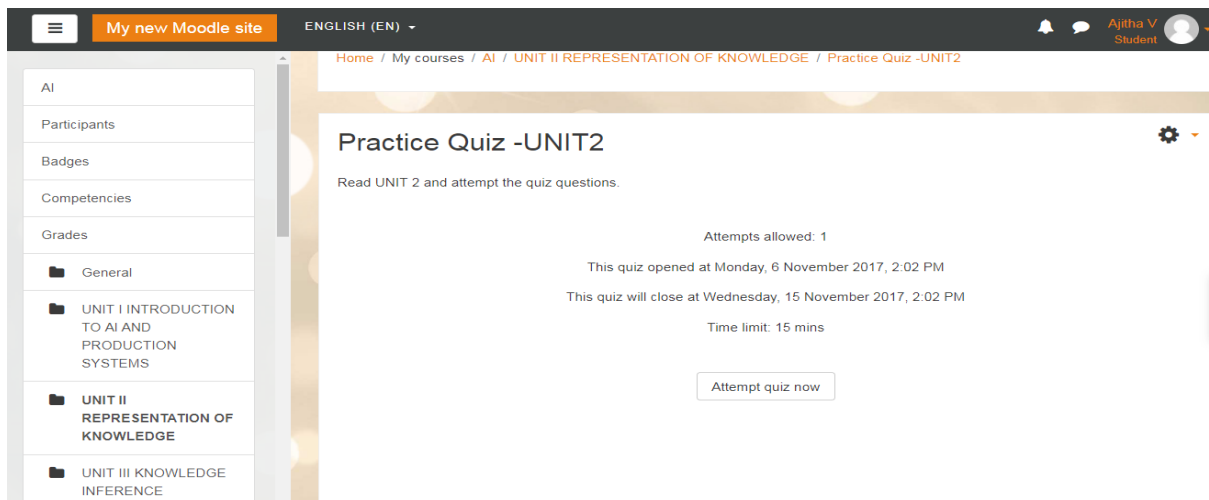
b) Grading Quiz:

To grade quiz

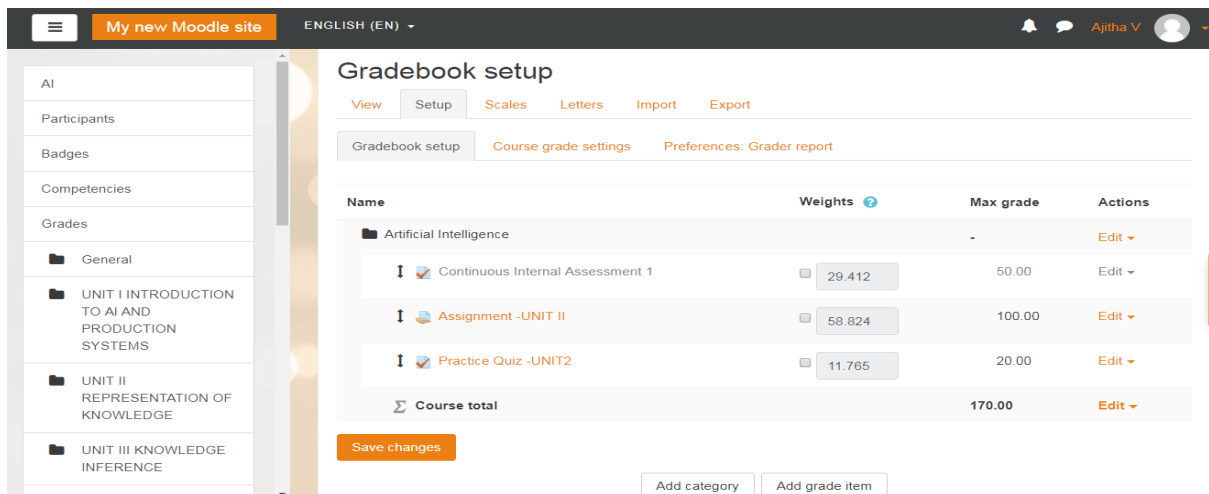
1. Log into Moodle.
2. Enter your course.
3. Click the name of the quiz you'd like to work with.



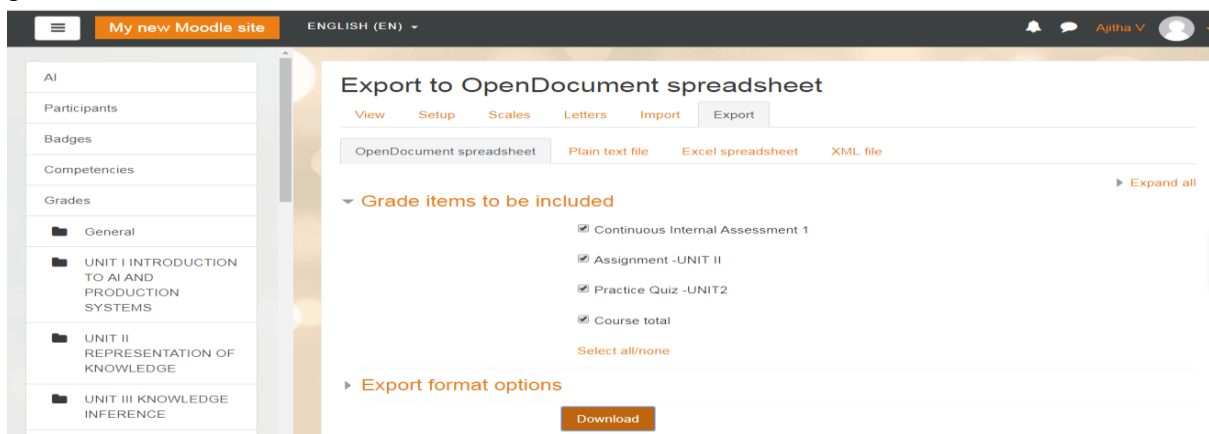
The quiz will be displayed on the screen.



4. In the Course Administration block click Grade Book setup..



5. To download the student Grades, Click the Export tab located along the top of the grade book. Select the desired options, or simply leave it at the default setting to download all grades and click the Download button.



How to use this OER:

Use of OER by students:

Visit link: <https://ajitha2017.wordpress.com/fdp101x/>

Link to all PPTs and LbD activities are provided. All materials can be accessed simply by clicking on the links provided for the topics. Similarly, the LbD activities can be accessed by clicking the links provided for them. The link to moodle quiz, assignment, forum, feedback is also provided there. The students can attempt the quiz, which is a MCQ type and solve the quiz before they come for next scheduled lecture class. After finishing and submitting all the answers, students will get their score, review of whole quiz and the correct answers immediately. Students can also use Discussion forum, if they have any query/doubt.

Use of OER by Educators:

Educators in the field of Artificial Intelligence can use this OER for their own courses also. They can provide link of website to students for conceptual understanding and implementing that knowledge through various LbD activities. The teacher can then check the performance of the students by viewing grades.

Best Practices with Lesson Activity:

1. By accessing this website, the faculty members of the same domain will get benefited. They get the references of the topic in the form of ppts, quiz, Assignment, Question bank, important questions, previous year solved Anna University questions and answers. Teacher can give some marks for completion of the LbD activity, if students do it well in advance as per the instructions. Students can take part in those activity topic wise, once the same topic has been covered in the class. Eventhough, the questions are shuffled, the teacher can conduct the quiz inside the class to prevent copying among the students. It would be better if all the required materials were uploaded well in advance in moodlecloud to students before the conduction of such assessment.

2. Students will get the resources in the form of slides to understand the concepts more clearly. One can view all the course contents at any of his/her suitable time and can go through it before coming to the class and as a result inside the classroom, students can participate in higher order cognitive level of skills. In the class, they can participate in THINK-PAIR- SHARE activity for solving problems.

3. Students can self-evaluate themselves by solving the quizzes which are available on the moodlecloud. These LbD activities can be referred by the students on a later stage also, as and when required. It acts as a good resource for doing revision during the end semester examinations.

Section 4: Evaluating Effectiveness of OER

The OER effectiveness can be assessed at two levels:

1. At the student level
2. At the consumer level

Effectiveness at the student level

By attempting the quiz in a given time frame the students can evaluate themselves and judge their knowledge about the topics. Also by attempting the Essay questions they can evaluate and judge themselves. Learning can be checked through the scores or grades of students who have attempted the quiz from moodle. The effectiveness can be checked by the number of students logged in and number of attempts they have taken to complete the answers. A feedback from the students can also be taken through the moodle feedback activity about the course contents.

Effectiveness at consumer level

As a consumer of this OER, we teachers want our students to learn and understand the concepts. Moodle shows the complete record of all those who have attempted the quiz. The teachers can evaluate the students based on the timely submission and completion of the assignments. The teachers can create the score card and evaluate the students. Finally the teachers can upload the final results on the Moodle. We can evaluate our OER on three main constructs: Ease of Use, Concept Coverage and Concept complexity.

Implementing Survey

We will send the survey questions to the teachers who tries to contact us through the contact page of the wordpress website or send us a personal mail. We would like to have their feedback in terms of following questions.

Survey Questions

The feedback survey instrument is as follows:

- 5-Strongly Agree
- 4-Agree
- 3-Neutral
- 2-Disagree
- 1-Strongly Disagree

Sl.No	Construct	Statements	5	4	3	2	1
1	Ease of use	I found it easy to download the Lesson					
		I found the instructions to setup the Lesson Activity useful in setting the activity in my Course					
		I was able to successfully create Lesson in my own course					
2	Concept Coverage	The Lesson covers the required concepts related to Artificial Intelligence that I need for					
3	Concept Complexity	The content inside the Lesson is too complex for my students to understand					

Section 5: Consolidated Log of Team Work

The consolidated log of team work is as shown below:

Activity	Team Member	Amount of time	Additional Logs if any
Discussion	V.Ajitha	3 hrs.	Plan of OER Discussed
	N.Bharathiraja	1 hrs.	
	V.Loganathan	1 hrs.	
Tool Exploration	V.Ajitha	5 hrs	MOODLE,PPTs
	N.Bharathiraja	1 hrs	
	V.Loganathan	1 hrs.	
OER Creation	V.Ajitha	2 months	Plan uploaded in Moodlecloud
	N.Bharathiraja	1 hrs.	
	V.Loganathan	1 hrs.	
OER Documentation	V.Ajitha	10 hrs.	Done in word Doc, Editing made in wordpress
	N.Bharathiraja	1 hrs.	
	V.Loganathan	1 hrs.	
Individual Reflection (Diary Logging)	V.Ajitha	2 hrs.	Review Comments
	N.Bharathiraja	1 hrs.	
	V.Loganathan	1 hrs.	
OER Evaluation	V.Ajitha	2 hrs.	-
	N.Bharathiraja	1 hrs.	
	V.Loganathan	1 hrs.	

Section 6: Building a Community of MOODLE and Flipped Classroom Adopters

Possible Sources for Community Building

Some of the viable sources for building a community are:

- Teachers who are using MOODLE for Artificial Intelligence course.
- Teachers who plan to use Flipped Classroom Strategies for the course Artificial Intelligence.

Plans for Community Building

The resource is already available in the webpage and its access requires the users to provide their email id. Thus there will be a list of interested users whom we can follow up using email. All the interested users can then be connected using a local Wordpress or Moodle website.

Works Cited

[1] WordPress [Online] <https://learn.wordpress.com/>

[2] <https://creativecommons.org/licenses/by-sa/4.0/>

[3] Kevin Night and Elaine Rich, Nair B., “Artificial Intelligence (SIE)”, Mc Graw Hill-2008.

[4] Stuart Russel and Peter Norvig “AI – A Modern Approach”,2nd Edition, Pearson Education 2007.

[5] <https://www.youtube.com/watch?v=QQ94dawEuGo>