* **Introduction of MOOC system**

The MOOC system provides access to huge number of free online courses to a massive number of users .Educational organizations upload courses having information like course description ,material , schedule ,and deadline for application .users search for courses by university ,topic or tutor and register for courses through the system .users can rate courses and write reviews on courses .users get certificates if they attended the course after the successful completion of the course .completion of the course could be based on assignments only or assignments and exams.

* **Problem Definition**
* **Objectives**
* **Related System**
  + **Advantage**

1. MOOC creates the opportunity for **sharing ideas & knowledge** and also helps improving lifelong learning skills by providing **easy access to global resources**.
2. It **improves cross cultural relationships** which leads to **collaboration between institution educators and learners** locally and internationally.
3. It gives an idea where I stand in the course in the current world as large number of students all over the globe would have registered for the same course on the same common platform and participate in the activities and discussion in the study group.
4. MOOC enhances active learning. Research shows that students learn more through active learning (i.e. when they have assignments or discussion on an issue) rather than through listening to lectures. Students listen to lectures more attentively if they have been given a problem or task to solve before the lecture. In this regard the structure that most MOOCs have – short lectures alternating with assignments and quizzes – seems to be ideal. Of course, one could also do this in a classroom, but it would be more difficult to ensure that all students participate: some might need longer to assimilate the content of the lecture, and prefer to listen to it again before doing the assignment [2]. Peer-to-peer contact facilitated by MOOC can also trigger effective active learning.
5. MOOC encourages flipping the classroom. Teacher-student contact time usually used for lectures could be used differently, e.g. for discussions, experiments, project and group-work, working with peers etc. Students watch lectures online at home and interact with faculty regarding their doubts while in class. It has been strongly advocated and demonstrated by Salman Khan, founder of the Khan Academy, in the context of school teaching. Teachers get time to work with students on an individual basis.
6. Knowledge sharing in Discussion Forum helps reflective and global learners along with active and sequential learners. Reflective learners who are not able to share ideas inside the physical classroom can put their ideas in discussion forum ad get the view points of others. Global learners who feel themselves lost in the beginning can share their diverse ideas on the forum and can get other’s suggestions to find their solution. To know about different types of learners follow the post “Different Learning Styles”.
7. “No exam fever” encourages deep approach of learning against the surface & strategic approach of learning .To know more about different approach of learning follow the post “Different strategies of learning”.
8. Peer evaluation provides the opportunity to learn via grading others. Because it is the best way to learn when you teach or grade someone else.
9. MOOC provides the opportunity to learn from world class universities and from renowned instructors without being a student of the respective university while sitting in the any part of the world.
10. MOOC opens up the facility to get free of cost “statement of accomplishment” signed by the instructor of the course, which someone completes in all respect according to the requirement of the subject. There are provision to earn the verified certificates with university logo and instructor signature on the payment of the course fee. Anyone can show these certificates at the time of job applications also. The employer can go to the corresponding MOOC provider database to get the information regarding the candidate. Some universities also started allowing to fulfill credit requirements of a degree from the MOOC courses.
    * **Disadvantage**
      1. MOOC provides all the video lectures and slides along with all related reading resources. This gives the students scope for not going through the lectures gradually but whole lectures in a single day which does not lead to deep understanding of the concepts.
      2. Real time question answering is also not possible while going through the lectures.
      3. Technical courses needing physical hands-on practical exposures (eg. Civil, Mechanical, Electrical etc.) are quite tough to be delivered through MOOC.
      4. There is no opportunity for effective assessment methods like Q&A in classroom, surprise quizzes and presentations.
      5. No proper evaluation methods are there as automatic machine assessments and evaluations are not effective. Peer evaluation sometimes lead to discouragement among students which lead them to dropout from the course.
      6. MOOC style of education will gradually kill the care, empathy and respect involved between teacher and students in a physical classroom. It only increases the virtual social community.

* **System Actors**
  1. Students
  2. Educational Organization
* **Requirements of MOOC system**
  1. The MOOC system shall allow the user to register to the system.

1.1 Ask the user if he is a student or educational organization.

1.2 If the user is a student ask about his name, password and email.

1.3 If the user is an educational organization ask about organization name, fields educate by the organization, tutors names ,email and password .

1.4 Adds the information in the database of the system.

* 1. The MOOC system shall ask the user to log in.

2.1 Allow the user to write username and password.

2.2 Search in the system database about this information.

2.3 If it is valid so the system allow the user to log in his account in the system.

2.4 If it invalid the system display message to the user to renter the username and password again.

* 1. The MOOC system displays to the student all the available fields.

3.1 Display all the fields available in the system database.

3.2 The system shall display to the student the available courses in the chosen field.

* 1. The MOOC system shall allow the user to search for courses by the university, topic or tutor.

4.1 The user enters the topic he wants to search about.

4.2 The system check in the database about the topic.

4.3 Display all the results to the user.

* 1. The MOOC system shall allow the user to enroll in courses.

5.1 The student chooses the course that he wants to enroll in.

5.2 All details about this course display to the student.

5.3 Then the student chooses enroll button.

* 1. The MOOC system shall alert the student whenever any update in the courses he enrolled in.

6.1 When the tutor update in the course.

6.2 The system sends emails to all students enrolled in this course to alert them.

* 1. The MOOC system shall allow the student to make feedback about the course by rating it after completion or write a review weekly.

7.1 After the lecture in the course end the system ask the student to write feedback.

7.2 All the students’ feedback are sent to the tutor after the lecture.

7.3 After completion of the course all students must rate the course.

7.4 The rate adds to the course details.

* 1. The MOOC system shall give the student activities and assignments to do on their own time to assure that learning is taking place.

8.1 The tutor must give assignments to all students who enroll in his course.

8.2 If the student doesn’t send the solution of the assignments he can’t complete the course.

* 1. The MOOC system should give certificates to the student if they attended the course and successful completion it.
  2. The system shall allow educational organization to upload courses.

10.1 The educational organization writes all details about the upload course such as (course name – course field – deadline for enrolling course).

10.2 The system adds the course in the database and allows students to enroll in.

* 1. Every course provides a forum for communication between the user and the educational organization.
* **Non-functional Requirements**
  1. The system without limitations and with the possibility to modify and get new updates.
  2. System shall be secured.
  3. System must be tested to minimize errors and system become more stable.
  4. System should be performance.
  5. System shouldn’t waste the storage space.
  6. A MOOC generates a large amount of information and it is necessary a large-enough and scalable storage system.
  7. The system must be easy to install, use and customize, and a user should not need advanced technical knowledge.
  8. The system must distinguish between registered and unregistered users.
* **Time plan**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Tasks** | **Depends** | **Duration**  **(Days)** |
| **A** | **System Requirements** | **-** | **5** |
| **B** | **Dividing the project into manageable tasks** | **A** | **5** |
| **C** | **Plan and Schedule** | **B** | **7** |
| **D** | **Analysis system requirement** | **A C** | **4** |
| **E** | **Screen Design** | **A** | **6** |
| **F** | **Database Design** | **E D** | **10** |
| **G** | **Programming** | **F** | **10** |
| **H** | **User Documentation** | **F** | **4** |
| **I** | **Program Testing** | **G** | **6** |
| **J** | **System Test** | **I** | **6** |
| **K** | **Performance Test** | **J** | **4** |
| **L** | **User Acceptance Testing** | **K H** | **5** |
| **M** | **Maintain** | **L** | **4** |