

Algorithm for creating an Online Quiz portal:

- 1) When a user clicks, an exam user is directly redirected to the login page, if the user is not logged in.
- 2) Home page is the landing page of the application from where a user can take any quiz by clicking on the quiz. On the home page, if the user is logged in his name is also shown and a logout link is provided to logout from the application.
- 3) On starting a quiz, a user is presented with the first question of the quiz with the next and finish button. Note that the previous button is not shown when the user is on first question and next button is not shown when the user is in the last question.
- 4) After clicking on the finish button the user is presented with exam results, showing the name of quiz; time when the quiz was started and the number of questions that the user answered correctly.
- 5) Login page is very much similar to registration page where we are providing two input fields asking user to provide a username and password. Once we get the username and password entered by the user we pass it to Login Controller to authenticate user.
- 6) To read the questions from the XML file we create a document that represents the XML file containing quiz questions. Whenever the user clicks on the next or previous button we call the set Question(int i) method, giving the index of question that we want to read and at the same time that question is saved in an Array List of Quiz Question.