**Internet Application: 2018 Term Project 🡪 Online Testing**

Having online Tests instead of arranging interviews saves time and efforts.

The goal of this project is to develop a website for online tests which can be auto evaluated.

Consider the following business process flow:

The final score and solutions of each candidate should be stored once he/she submit solutions or the time of session was out

The candidate has to login in the site and he/she has the option to start the exams immediately or later

HR can either approve or disapprove candidate. Upon approval, a link with the specific exams types (defined by the HR) is sent to the user

Applicant register on the site and upload his/her CV for a specific available position

**The project Functionalities:**

**For Candidate:**

1. Candidate has to register with his/her email, to upload his/her CV and optionally he can enter his telephone number. **JavaScript validation for all fields and suitable messages is a must.**
   * **Checking usernames existence in database must be done using Ajax.**
2. Candidate registration should be approved/disapproved by HR, upon approval, the system send an email to user with links of his exam. The exams type and sequences is also defined by the HR upon approval.
3. The candidate has the option to start the tests immediately or later. It isn’t mandatory for candidate to solve all tests in the same day (i.e. he/she can solve java exam on Monday and start the IQ exam on Wednesday). The candidate can solve the exam x only when he/she presses solve exam x button or when exam y is passed.
4. System must choose randomly a collection of questions; and for each question the system must choose randomly three incorrect answers from the incorrect answers of that question and one correct answer from the correct answers of that question.
5. The questions should be selected from different topics related to the exam type e.g. java exam will have object oriented topic and threads topic the random selection has to cover both topics
6. The solution has to be saved once he/she answers the question. **Saving answers must done via Ajax.**
7. The candidate can skip or mark any question (number of solved, skipped and marked questions must be auto calculated)
8. The candidate can submit his/her solutions before the time be out
9. After submission or the time of session was out, the system must auto save the questions and solutions of each candidate. And an email should be sent to HR and the candidate contains the information of the candidate and the performed exam and the score.
10. Use sessions to pass the user data between pages, make a tab in the upper right corner with Hello username in every page after login

**For HR:**

1. HR can see the full test of each candidate with candidates’ solutions
2. HR can show the summarized report of the result (score per each exam and the total (sum) of all scores) for each candidate
3. HR can search with more than criteria such as (candidate email, candidate name, exam type [java, python, IQ, English], exam date)

**General notes:**

* In this project you will work in team between 2 and 4 of students from the same lab. You have to divide the responsibilities among the team members.
* Before you go on the implementation you have to design the model (a suitable ERD) for the project, ERD must be submitted with the project.
* You have to use MVC pattern during implementation phase.
* Doing this project entirely using node.js as your backend framework will get you 4 extra grades.
* The project weights 10 grades and will be discussed on your lab on week starting 23/12