**Project overview**

The project will be a game-based educational platform. This platform will help students to understand basic educational concepts while they will be playing simple games. These concepts will be related to subjects like science, technology and math.

One of the examples of this idea is “BrainRush” <http://www.brainrush.com/>

Students can play simple games in brain rush and these games will make students understand new educational concept. Also teachers can sign up in this website and create their own games. Brain rush contains 4 categories of games each category has specific rules and teacher can create any game belongs to one of these categories.

So there are 3 main components in this project

**1- Students**

Each student should have an account in the website. The student account will contain student’s basic information like name, age, gender, …., etc. Also it should contains students achievements (Scores he/she get in each game)

Students also can rate any game (interesting, normal, boring) and write comments for each game.

**2- Teacher**

Each teacher should have an account in the website. The teacher account will contain teacher’s basic information like name, age, gender, …, etc. Teacher can try any game in the website and also can create any new game. Teacher also should be able to edit or remove and game he/she created it before. And also teacher should be able to respond on students comments for games created by him/her.

**3- Games**

Games will be played by one student and will be created by teacher. Each game should belong to one category. Game’s category may be “Match pictures”, “Multiple Choices game”, “Run code game”

In brainrush there are games like “Multi-digit addition”, “How many syllables”, “GreekGods” these games classified as multiple choices game.

We want also to add coding games to help students understand basic programming concepts. Please take a look to this websites

<https://codecombat.com/>

<https://www.codingame.com/>

<https://hourofcode.com/eg>

**Opportunities:**

Computek company will be interested in this project. So teams who will be able to do a good work in this project will be rewarded from Computek. Project phases will be mainly 3 phases

**1- Requirements gathering and analysis**

The expected output from this phase is a detailed requirements list and use cases for the requirements. The best 3 teams in this phase will be rewarded from Computek. The first team will attend one month training in Computek.

**2- Software design**

The expected output from this phase is class diagram design, sequence diagram design. The best 3 teams in this phase will be rewarded from Computek. The first team will attend three months training in Computek.

**3- Implementation**

The expected output from this phase is a working web application according to the best requirements and the best design. The best 3 teams will in this phase will be rewarded from Computek. The company will study the best implementation and if this implementation is promising the company will market for this project and this team will have a share in this project.

**Project Rules:**

1- Teams will contain 3-4 members. NO CHANGE IN THIS RULE.

2- Deadlines and any announcements will be announced through course page on acadox

3- Cheaters will get -ve marks.