AI201 Programming for AI
Project
Deadline : Friday before the last week of Fall 2021.

FCSE
GIKI

Fall 2021

1 Objectives

(a) Test the student's ability to build reasonable sized project in Python

(b) Test the student's ability to work with external libraries

(c) Test the student's ability to work in a team

(d) Test the student's ability to demonstrate regular progress

(e) Test the student's ability to follow written instructions

2 Instructions

- This is a group assignment. You can make teams of upto 3 people provided:
    - the project work justifies 3 people
    - project work is roughly equally divided between group members
    - each member can defend and answer viva question about their part of the project

- You will be using the Python programming language to do this assignment. External libraries are allowed.

- Write clean, readable, and well commented code.

- The submission will be on MS Teams. Late submission will lose marks.

- You should submit one file named `u2020xxx_a03.zip`, xxx being last 3 digits of group reg.no.

3 Overall idea

The purpose of this exercise is to help you experience writing slightly larger programs than your average assignments will allow. Since it will be group project you will also learn, for better or for worse, how it is to work in a team and how to manage your colleagues.

You are free exercise your creativity and come up with ideas that you find are suitable. You should discuss your idea with your instructor and get it approved in the next week. The requirements from our side are:

1. it be Python based project

2. it has some AI component and for that it use Python libraries for AI like, but not limited to, Scikit-learn, Tensorflow, etc. [1]

As your programs get larger, the proper management of your code gets important. You should divide your code in well-designed modules, create classes and function which are logically needed for the completion of your project. You are also requested to write well-designed, well-commented, readable, clean code.

You people will have a few weeks and the idea is that you do regular work over this period build a finished product as a team instead of sitting down just before the deadline and materialize a project. For that you will be asked to show regular progress at the end of every week.

4 Milestones

You will earn marks in this project by achieving different milestones:

4.1 Idea and team finalization

You have one week in which you will have to come up with and idea, get it approved by the instructor, select a team, a team representative, creat a github repository of your project and convey all this information to your instructor.

4.2 Week1 progress

Before the end of the first week you will commit all your first-week progress on github and discuss it with the instructor in a meeting. There should be commits from each member showing their progress.

4.3 Week2 progress

Before the end of the second week you will commit all your progress so far on github and discuss it with the instructor in a meeting. There should be commits from each member showing their progress.

4.4 Final submission

You will commit all your progress to github before the deadline. There should be commits from each member showing their progress. The project should be working by now. You will give a demo and pass vivas about your respective parts of the code.

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[1]You can take inspiraton from sites like `https://www.kaggle.com/`

5 Rubric

Milestone	Deadline	Marks
Idea + Team + Github	16/12/21 : 3pm.	10
Week1 progress	24/12/21	15
Week2 progress	31/12/21	15
Final submission	Deadline	60
Code was not readable + Unable to answer viva + Program crash + Program handles errors well	Deadline	-ve penalty
Total		100 marks