Group Project – Developing Full-Stack Intelligent Apps

Purpose: The purpose of this project is to:

- Design and code full-stack intelligent apps using emerging frameworks
- Build a Rest or Graph QL API
- Build a Front-End for the Rest API
- Apply appropriate design patterns and principles
- Use Computer Vision/NLP to make intelligent use of data

References: Read the textbook, lecture slides, class examples, and additional references provided here. This material provides the necessary information that you need to complete the project. You may need to read and use more materials and tools to implement a good solution.

Be sure to read the following general instructions carefully:

- This Project **may be completed in groups of 3-4 students**.
- You will have to **<u>present and demonstrate your solution</u> .**
- You need to submit
    - Zip file containing all the files including correct directory structure
    - Demonstration of the work (recording)
    - PPT presentation with audio to discuss the individual contribution to the project
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<u>Project Requirements</u>

Your client needs an **application to automate classification/prediction tasks**. Develop a full-stack app composed of:

1. A friendly UI that allows users to use/administer the system
2. A modern backend API to perform classification/prediction tasks

You are supposed to use CNN/RNN/LSTM and build a full-stack intelligent solution using a publicly available dataset or data collected by you. The project will be graded based on the following criteria

- Uniqueness of the problem
- Usability
- Prediction accuracy
- Scalability & Portability
- Documentation

Suggestions:

1. Your trained model should be able to load from the disk (or via url).

2 Don’t utilize cloud AI APIs such as Google AI or AWS AI
3 However, you can use a VM (e.g EC2) instance or a deployment platform such has Heroku to create/publish your application (recommended method)