Computer Science Capstone Topic Approval Form

The purpose of this document is to help you clearly explain your capstone topic, project scope, and timeline. Identify each of these areas so that you will have a complete and realistic overview of your project. Your course instructor cannot sign off on your project topic without this information.

Note: You must fill out and submit this form. Space beneath each number will expand as needed.

Any cost associated with developing the application will be the responsibility of the student.

INFORM INSTRUCTOR:

Potential use of proprietary company information: (Y/**N**)

ANALYSIS:

1. Project topic AND description:
   My project topic is to build a model using dataset of car characteristics and their sale price. A Linear regression model can be created by the dataset to estimate the price of a car with specific characteristics. The final product will be a sort of calculator where a user could plug in the characteristics to find a competitive price for a car.

   A new car manufacture, Weird Motors, is entering the market and would like to know at what price point would their cars be competitive at. Using this model they can find out what a car might be worth in the current market and what changes they could make to increase profits.

2. Project purpose/goals:
   The goal is to make a model out of the Car Dataset that would be able to output a price of car given the characteristics.

3. Descriptive method:
   I will show the dataset in a scatter plot and box an wisker graphs. This will show how each characteristic influences price.

4. Predictive/Prescriptive method:
   Using a linear regression model I can make a model to calculate the price of car with any of the characteristics that are tracked.

DESIGN and DEVELOPMENT:

1. Computer science application type (select one):
   Webpage in the form of a Jupyter Notebook.

2. Programming/development language(s) you will use:
   Python

3. Operating System(s)/Platform(s) you will use:
   Windows 10, Jupyter Notebook

4. Database Management System you will use:
   CSV file uploaded into python script

5. Estimated number of hours for the following:

i. Planning and Design: 2 hrs
ii. Development: 5 hrs
iii. Documentation: 3 hrs
iv. Total: 10 hrs

6. Projected completion date:
   June 24, 2022

IMPLEMENTATION and EVALUATION:

1. Describe how you will approach the execution of your project:
   Using Jupyter notebooks I can create a file that will demistrate how the dataset is implemented. Using Scikit Learn module I will create a model to estimate the price of a car.

☒ **This project does not involve human subjects research and is exempt from WGU IRB review.**

STUDENT SIGNATURE

_____ Jaxon Weis _____

By signing and submitting this form, you acknowledge any cost associated with development and execution of the application will be your (the student) responsibility.

COURSE INSTRUCTOR'S NAME:

_____

COURSE INSTRUCTOR APPROVAL DATE: June 23, 2022