

Software Development Lab Project

Project name: House price predictor (GhorbariBechaKena.com)

Version control system:

<https://github.com/niamul64/GhorBariKenaBecha-ecommerce-website-by-django-and-machine-learning.git>

Website URL: <http://niamul26.pythonanywhere.com/>

Project Members:

Niamul Hasan (Id: 17201026), Md. Anik Khan (Id:17201021), Tahura Nasrin (Id: 17201032)

Mapping among PS, COs, and POS:

Ps	Attribute	How Ps are addressed through the project
P 1	Depth of Knowledge Requirement	Here we using depth knowledge of Html5, css3, python3, Django, Machine Learning. (k8) Data collection and analysis for machine learning model. (k7)
P 2	Range of Conflicting Requirement	For this project, the requirement is to set a machine learning model to predict the apartment price in Dhaka city. Here, we have to select the most feasible model. But, there is no such data set for that. There are some data sets for New York City and other big cities. So, to build this we need to analyze the existing data and try to collect data accordingly for the model. At first, we thinking to add 4 parameters to the data set. But later we found that we should include more parameters. By analyzing more, it may require adding more parameters. Based on the scenario of the economy of the country the data set may become backdated then the model may struggle to give a proper prediction.
P 3	Depth of Analysis Required	Depth of analysis is required to select the parameters in the dataset, to have a good prediction system. Depth of analysis is required to select the most feasible machine learning mode.
P 4	Familiarity of Issues	To predict any apartment price properly all over Dhaka City. But it is so difficult to collect that much data for that.
P 5	Extent of code applicable codes	Generate proper solution of machine learning model based on the requirements.
P 7	Interdependence	High-level problems including many parts or sub-problems. Here the e-commerce is an independent module or part of the project. And The predicting system is another module or part of the project.

Addressing complex Activities (As) through the project:

As	Attribute	How As are Addressed through the project
A 1	Range of resources	In the development stage, the project requires the use of diverse resources including different type of information's: djago2.2 framework, Technologies: joblib, People: developers.
A 2	Level of interaction	As it is an E-commerce site, a large number of people may interact with the system. So, the system(database, backend) must capable enough to handle that situation.
A 3	innovation	A degree o innovation is needed to prepare the dataset for our project and attach the machine learning model with Django framework.
A 4	Consequences for society and the environment	this application could be like other e-commerce web apps. The website will provide easy to use buy-and-sell platform. It will help the people of society to become economically benefited by buying or selling houses, apartments, lands at competitive prices.
A 5	Familiarity	The project deals with security. (as it is having data of users)

Co-Po mapping for this Project:

CO	CO(Project) Statements	Correspondin g POs (Appendix-1)
CO 1	Use of Django, use of machine learning model with Django, data collection	1,2,3,12
CO 2	Use industrial state of the the practice of hosting the website on the hosting site.	4
CO 3	Use a modern/popular IDE (Pycharm)	5
CO 4	Understand the concept of professional ethics, confidentiality, industrial standards, risk-benefit analysis, and explain the impact of engineering solutions on social safety, data safety, and welfare.	6,7,8
CO	Maintain distributed and collaborative software development, maintenance.	9,10,11