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W200 Project 1: Reflection Document

Instructions To Run Program

Enter **>python3 main.py** into your command line to run the program.

The program is supported by one module (House) and many packages (budget, compare, dreamhouse, room, bathroom, kitchen, feature). See the list below for the full set of files needed:

Dream House Construction Cost Estimator/

- |-- main.py
- |-- budget.py
- |-- compare.py
- |-- House/
 - | |-- __init__.py
 - | |-- dreamhouse.py
 - | |-- room.py
 - | |-- bathroom.py
 - | |-- kitchen.py
 - | |-- feature.py
- |-- README.md
- |-- Design Documentation.pdf
- |-- Reflection Documentation.pdf

The program will then prompt the user to enter attributes about the house along with an optional budget. The attributes the program will ask the user for are: location, square footage, number of floors, number of bedrooms, type of flooring, type of roofing, number of bathrooms, bathroom counter type, shower / bathtub, kitchen counter type, kitchen sink type, and fridge type.

At the end, the program will reveal the total cost of the house along with a summary of the chosen attributes. The program will then ask the user if he/ she would like to make any changes to the house before quitting out of the program.

Completed/ Did Not Completed

I completed creating a program that encompasses many aspects of the home building and estimating process. I was able to capture some of the larger, more prominent aspects of building a house such as choosing square footage of the house, number of bathrooms, and bedrooms. I was also able to incorporate some smaller choices such as kitchen appliances and sink type.

Unfortunately, construction estimation is a huge undertaking that typically requires many more user inputs. It also requires a lot more data to draw from to create an estimate. This is because estimating a house cannot be broken down into the simple categories that I broke it down into (kitchen, bathroom, general). There are a lot more steps and costs that go into building a house such as foundation work

(which can vary a lot depending on the pre-existing conditions), framing costs, exterior finishes costs, permitting costs, and design costs. For the purposes of this project, I excluded many of the more complex aspects of construction, because I didn't want the typical user of my program to be confused by the construction jargon.

Challenges

Some challenges I faced with the program is putting all my classes in different .py files. I didn't thoroughly read through the Project 1 documentation before I coded my project. While parsing out my code to different .py files, my code had some trouble running because some of my classes required other classes in order to run. I realized I had to import those classes into the different .py files. This also meant I had to import the superclass into any subclasses I had.