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#Program #5

#Section 0003

#Created on November 15th, 2021

#Due November 21st, 2021 11:59PM

Program #5 Algorithm

1. Start.

2. From the datetime function import datetime

3. Create the class labeled House

3.1 Define the constructor of the House class with parameters: self, year, purchase_price, currentYear, and location.

3.1.A Have the default values be set to: 0, 0, 2021, 'none', respectively.

3.1.B Have the objects within the constructor set as, self.year = year, self.purchase_price = purchase_price, self.location = location, self.currentYear = currentYear, and self.currentValue = 0.

3.2 Define the method: current_value(), with parameter: self.

3.2.A Set the object self.currentValue to equal the integer of the equation: self.purchase_price multiplied by 1.08 to the power of the difference between self.year and self.currentYear.

3.2.B Output self.currentValue

3.3 Define the __str__() method with parameter: self**.**

3.3.A Output: 'House Information:\n Year Built: {}\n Purchase Price: {}\n Current Value of House: {}\n Location: {}'.format(self.year, self.purchase_price,self.current_value(),self.location)

3.4 Define the method: money_earned() with paramenter: self.

3.4.A set profit to equal self.current_value() - self.purchase_price.

3.4.B Output: 'Total value you will earn:\n {}'.format(profit)

4. Create function: info_input()

4.1 set yearcheck to datetime.now().year

4.2 print: 'Welcome to our house calculation app'

4.3 While True

4.3.1 Try to do the following.

4.3.1A Set house_year to the user's input.

4.3.1B If the house_year given is below 0 or greater than yearcheck, inform the user that they need to enter a valid year.

4.3.1C Otherwise break off from the while loop

4.3.2 Create an exception for a ValueError, and inform the user that they must enter a year with only integers

4.4 While True

4.4.1 Try to do the following.

4.4.1A Set house_price to the user's input.

4.4.1B If the house_price given is below or equal to 0, tell the user to enter a valid price

4.4.1C Otherwise break off from the while loop

4.4.2 Create an exception for a ValueError, and inform the user that they must enter a price with only integers

4.5 While True

4.5.1 Try to do the following.

4.5.1A Set currentYear to the user's input.

4.5.1B If the currentYear given is less than house_year or currentYear is not the same as yearcheck, tell the user to enter the correct current year

4.5.1C Otherwise break off from the while loop

4.5.2 Create an exception for a ValueError, and inform the user that they must

enter a year with only integers

4.6 Set house_loc to the user's input

4.7 return house_year, house_price, currentYear, house_loc respectively.

5. Within the Main do the following

5.1 While True

5.1.1 Set a,b,c,d respectively to the function: info_input()

5.1.2 Output seven-teen '-' dashes

5.1.3 Set house_information to the class House with parameters a,b,c,d.

5.1.4 Output seven-teen '-' dashes followed by a gap procceeded by thirty-four dashes

5.1.5 Set house_profits to house_information.money_earned()

5.1.6 Output house_profits followed by thirty-four dashes below it

5.1.7 While True

5.1.7A Set cont to user's input requesting them to enter "Y" or "N"

5.1.7B If the uppercase value of cont is 'Y' or 'N', break from this loop

5.1.7C Otherwise inform the user to only enter "Y" or "N"

5.1.8 If the uppercase value of cont is "N", break from this loop

6. End