
Project #1

Description:

You are working for a carpeting and flooring company. You need a program to create an estimate for customers. There are three types of rooms that customers might have: square, rectangle and circle. Yes, some people have houses with rooms that are circles. The program should ask for the customer's name and address. Then ask for the dimensions of the room. It should determine the price to put flooring in the room.

We compute flooring based upon the area of the room in square feet. Flooring costs \$2/ square foot. Installation costs \$1.5/ square foot.

The equation for area is as follows:

- Square: $\text{area} = \text{side1} ** 2$
- Rectangle: $\text{area} = \text{side1} * \text{side2}$
- Circle: $\text{area} = \text{radius} ** 2 * \pi$

Once the user has entered the information, the program should print out the customer information. Then it should print the total square feet in the room followed by the estimate for the flooring and installation. Finally it should print the total cost. See sample input/output below.

Create 3 short python programs called square.py, rectangle.py and circle.py. One will be for each room type. Below is sample input and output.

Sample Output:

Run square.py

```
What is the name of the customer?
>> Frank Mitropoulos
What is the address of the customer?
>> 123 Main St. USA
What is the size of 1 side of the room (in feet)?
>> 10
Estimate for Frank Mitropoulos
123 Main St. USA
```

```
Square room with area of 100 square feet.
Estimated cost for flooring is $200
Estimated cost for installation is $150
Total estimate is $350
```

Run circle.py

```
What is the name of the customer?
>> Frank Mitropoulos
What is the address of the customer?
```

```
>> 123 Main St. USA
What is the radius of the room (in feet)?
>> 5
Estimate for Frank Mitropoulos
123 Main St. USA

Circle room with area of 78.5 square feet.
Estimated cost for flooring is $157
Estimated cost for installation is $117.75
Total estimate is $274.75
```

```
Run rectangle.py
What is the name of the customer?
>> Frank Mitropoulos
What is the address of the customer?
>> 123 Main St. USA
What is the size of the length of the room (in feet)?
>> 5
What is the size of the width of the room (in feet)?
>> 10
Estimate for Frank Mitropoulos
123 Main St. USA

Rectangle room with area of 50 square feet.
Estimated cost for flooring is $100
Estimated cost for installation is $75
Total estimate is $175
```