**Design**

Main

**Create** variables for house cleaning prices based on number of rooms

**Prompt** user if they'd like house or yard cleaning (**house\_or\_yard\_cleaning**)

Get the response

**Create function** to calculate the price of the senior discount: 25% off (.25) (**senior\_discount()**)

**Initialize** discount percentage

**Prompt** user for whether they're a senior or not (**qualify\_for\_discount**)

Get the response

**Calculate** the senior discount (**final\_cost** = **total\_cost** - **round((discount \* total\_cost), 2**))

**Display** the final cost of the service with the discount included if a senior

**Display** the final cost of the service with no discount included if not a senior

**Decide if** house cleaning was chosen

**Display** room size qualifications: Small - 1-2 rooms, Medium - 3-4 rooms, Large - 5-6 rooms

**Prompt** user for number of rooms (**num\_of\_rooms**)

Get the response

**Display** the cleaning prices based on the user input for the number of rooms

**Prompt** user for type of cleaning (**cleaning\_type**)

Get the response

**Prompt** user for condition of cleaning: Standard or Deep Clean (**cleaning\_condition**)

Get the response

**Create function** to calculate the price of cleaning rooms (**cleaning\_service()**)

**Set** prices based on number of rooms and type of cleaning done (**cleaning\_price**)

**Calculate** final cleaning price based on if deep cleaning was requested

**Display** the total cleaning cost (**total\_cost**)

**Call** senior discount function to decide if a discount should be applied

**Decide** if yard cleaning was chosen

**Initialize** prices for mowing: .50 per square foot, edging: 5 per linear foot, and shrub pruning: 10 per shrub

**Display** yard service prices (**mowing\_price, edging\_price, and pruning\_price**)

**Prompt** user for type of yard service they'd like done (**service\_type**)

Get the response

**Create function** to calculate the price of yard work (**yard\_service()**)

**Decide** if mowing was chosen

**Prompt** user for length of yard in feet (**yard\_length**)

Get the response

**Prompt** user for width of yard in feet (**yard\_width**)

Get the response

**Calculate** square footage of yard (**square\_feet = yard\_length \* yard\_width**)

**Calculate** total cost of mowing (**total\_cost = square\_feet \* mowing\_price**)

**Display** measurement and total cost of mowing

**Call** senior discount function to decide if a discount should be applied

**Decide if** edging was chosen

**Prompt** user for linear footage of yard's edges (**edging\_length**)

Get the response

**Calculate** cost of edging the yard (**total\_cost = edging\_length \* edging\_price**)

**Display** the linear footage of the yard and the total cost of edging

**Call** senior discount function to decide if a discount should be applied

**Decide if** pruning was chosen

**Prompt** user for the number of shrubs they'd like pruned (**num\_of\_shrubs**)

Get the response

**Calculate** the total cost of pruning (**total\_cost = num\_of\_shrubs \* pruning\_price**)

**Display** the number of shrubs they'd like pruned and the total cost of pruning

**Call** senior discount function to decide if a discount should be applied

End

**Test Plan**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Test #** | **Input**  **(house\_or\_yard\_cleaning)** | **Input**  **(service\_type)**  **Or**  **(num\_of\_rooms)** | **Input**  **(yard\_length)**  **Or**  **(cleaning\_type)** | **Input**  **(num\_of\_shrubs)** | **Input**  **(yard\_width)**  **Or**  **(cleaning\_condition)** | **Expected Output** | **Input**  **(qualify\_for\_discount)** | **Expected discount output** | **Pass/Fail** |
| **1** | **car, pool, yard** | **mowing** | **20** | **N/A** | **50** | **Repeat question/500** | **y** | **375** | **Pass** |
| **2** | **h** | **6 (rooms)** | **window** | **N/A** | **deep** | **750** | **n** | **750** | **Pass** |
| **3** | **y** | **edging** | **100** | **N/A** | **N/A** | **500** | **y** | **375** | **Pass** |
| **4** | **yard** | **shrub** | **N/A** | **125** | **N/A** | **1250** | **n** | **1250** | **Pass** |