```
from google.colab import drive
drive.mount('/content/drive')
```

```
Drive already mounted at /content/drive; to attempt to forcibly remount, call drive.mount("/content/drive", force_remount
```

```
!pip install pyswip
```

```
Looking in indexes: https://pypi.org/simple, https://us-python.pkg.dev/colab-wheels/public/simple/
Requirement already satisfied: pyswip in /usr/local/lib/python3.8/dist-packages (0.2.10)
```

```
# importing libraries
import nltk
nltk.download('punkt')
from nltk.tokenize import word_tokenize
from nltk.stem import PorterStemmer
from pyswip import Prolog
```

```
[nltk_data] Downloading package punkt to /root/nltk_data...
[nltk_data]   Package punkt is already up-to-date!
```

```
print("Welcome to shopping mart")
print("Enter your name")
name = input()
print("Hello " + name + "! We are happy to serve you here at our shopping mart.")
print("What will state your occupation as:[student/employee/business]")
occ = input()
print("What category are you searching your products in: ")
print("We have these categories in our mart (electronics,furniture,household items)")
typ = input()

print("Would you like to use our auto set budgets or not")
choice = input()

choi = 0
lower = 0
upper = 0
```

```
Welcome to shopping mart
Enter your name
Jaideep
Hello Jaideep! We are happy to serve you here at our shopping mart.
What will state your occupation as:[student/employee/business]
I work
What category are you searching your products in:
We have these categories in our mart (electronics,furniture,household items)
I want to buy electronics for my home
Would you like to use our auto set budgets or not
Yeah dude
```

```
ps = PorterStemmer()

tok1 = word_tokenize(choice)
choilist = []
for wod in tok1:
    stem1 = ps.stem(wod)
    choilist.append(stem1)


for ele in choilist:
  if("y" in ele):
    choi =2
    choice = "yes"
    break
  else:
    choice = "no"
    choi = 1


tok2 = word_tokenize(typ)
typlist = []
for wod in tok2:
    stem1 = ps.stem(wod)
    typlist.append(stem1)
```

```
for ele in typlist:
  if("elec" in ele):
    typ = "electronics"
    break
  elif ("furn" in ele):
    typ = "furniture"
    break
  else:
    typ = "household"



tok3 = word_tokenize(occ)
occlist = []
for wod in tok3:
    stem1 = ps.stem(wod)
    occlist.append(stem1)


for ele in occlist:
  if(("stud" in ele) or ("read" in ele)):
    occ = "student"
    break
  elif (("emp" in ele) or ("work" in ele)):
    occ = "employee"
    break
  else:
    occ = "business"



if(occ == "student"):
  occu = 1
elif(occ == "employee"):
  occu = 2
else:
  occu = 3
```

```
import json

f = open('/content/drive/MyDrive/AI/Ass5/sort_data.json')
data = json.load(f)


print("Since you have chosen " + typ + ", here are the categories for the items(choose the number and type the number only)")
#get categories

if  typ == "electronics":
  typind = 0
  typ = "electronics"
elif typ == "furniture":
  typind = 1
  typ = "furniture"
else:
  typind = 2
  typ = "household_items"

i =0
for item in data[typind]['items']:
  print(str(i) + " " + item['category'])
  i = i+1

cat = int(input())
category = data[typind]['items'][cat]['category']
category = category.lower()
cate = ""
for i in category:
  if i == " ":
    cate = cate + "_"
  elif i == "&":
    cate += "and"
  else:
    cate += i
```

```
#get subcategories
print("Since you have chosen " + category + ", here are the subcategories for the items")
i = 0
for item in data[typind]['items'][cat]['items']:
  print(str(i) + " " + item['subCategory'])
  i = i+1


print("Choose the sub category from the chosen category (choose the number and type the number only)")
subcat = int(input())

subCategory = data[typind]['items'][cat]['items'][subcat]['subCategory']

subCategory = subCategory.lower()
sucate = ""
for i in subCategory:
  if i == " ":
    sucate = sucate + "_"
  elif i == "&":
    sucate += "and"
  else:
    sucate += i



print("You have chosen the " + subCategory + " of " + category + " category")


rating = 0
highest_rated = {}
for item in data[typind]['items'][cat]['items'][subcat]['items']:
  if(item['Rating'] >= rating):
    highest_rated = item

print("The highest rated product in the category is: \n" + highest_rated['Name'] + " with the rating of " + str(highest_rated[


if(choi == 1):
  print("You have chosen not to use the auto set budget so choose your budget limits.")
  print("Your budget lower limit (Give only the number)")
  lower = input()
  print("Your budget upper limit (Give only the number)")
  upper = input()
else:
  print("we are using the auto set budget for you")
```

```
Since you have chosen electronics, here are the categories for the items(choose the number and type the number only)
0 Audio
1 Cameras
2 Computer Peripherals
3 Gaming
4 Health & Personal Care
5 Laptop Accessories
6 Laptop & Desktop
7 Smart Home Automation
8 Smart Wearables
9 Storage
10 Tabelts
11 Mobiles
3
Since you have chosen gaming, here are the subcategories for the items
0 Gaming Consoles
1 Gaming Mouse
2 Gaming Keyboards
3 Gamepads
4 Games
5 Gaming Mousepads
6 Controllers
Choose the sub category from the chosen category (choose the number and type the number only)
5
You have chosen the gaming mousepads of gaming category
The highest rated product in the category is:
PrintMall BigSize WaterProof Gaming Mouse Pad Non-Slip ... with the rating of 3.05 and a price of ₹125
we are using the auto set budget for you
```

```
ans = '"' + (typ + "(" + cate + ", " + sucate + "," +  str(occu) + "," + str(choi) + "," + str(lower) + "," + str(upper) + ").
```

```
import subprocess
x = 'echo ' + ans + ' | swipl -q -f /content/drive/MyDrive/AI/Ass5/shopping.pl'
print(subprocess.getoutput(x))
```

```
Warning: /content/drive/MyDrive/AI/Ass5/shopping.pl:259:
        Singleton variables: [_bottles]
Warning: /content/drive/MyDrive/AI/Ass5/shopping.pl:263:
        Clauses of items/2 are not together in the source-file
          Earlier definition at /content/drive/MyDrive/AI/Ass5/shopping.pl:3
          Current predicate: items/3
          Use :- discontiguous items/2. to suppress this message
Warning: /content/drive/MyDrive/AI/Ass5/shopping.pl:269:
        Singleton variables: [_bottles]
Warning: /content/drive/MyDrive/AI/Ass5/shopping.pl:362:
        Singleton variables: [Electronics,Furniture,Household]
Warning: /content/drive/MyDrive/AI/Ass5/shopping.pl:363:
        Singleton variables: [Lname]
Warning: /content/drive/MyDrive/AI/Ass5/shopping.pl:379:
        Singleton variables: [Item_type_Main]
Warning: /content/drive/MyDrive/AI/Ass5/shopping.pl:550:
        Singleton variables: [Item_type_Main]
Warning: /content/drive/MyDrive/AI/Ass5/shopping.pl:720:
        Singleton variables: [Item_type_Main]
Warning: /content/drive/MyDrive/AI/Ass5/shopping.pl:907:
        Singleton variables: [Own_brand]
Warning: /content/drive/MyDrive/AI/Ass5/shopping.pl:916:
        Singleton variables: [X]
Warning: /content/drive/MyDrive/AI/Ass5/shopping.pl:963:
        Singleton variables: [L,U]
Warning: /content/drive/MyDrive/AI/Ass5/shopping.pl:964:
        Singleton variables: [F]
Warning: /content/drive/MyDrive/AI/Ass5/shopping.pl:1021:
        Singleton variables: [L]

=======================

Welcome to Electronics section

=======================
Here is the top rated product according to your needs:
Brand : RPM
 Name and descripton : RPM Euro Games Gaming Mouse Pad 800 x 300 x 3 MM with S...
 Price(in rupees) : 264
 Rating(Out of 5) : 4.89
 Total Ratings : 1926


================================================================
Here are some stats to help aid your searching experience- :

Average Product Price: 136.13793103448276

The price range available here is:
        The lowest price is: 76
        The highest price is: 264

The total numbers of reviewers that rated this product subtype: 31350

================================================================
Since you are a Employee ,your auto-budget is set too:
136.13793103448276 - 264
These are the recommendations based on your budget (Top Rated First):
```

Colab paid products - Cancel contracts here

✓ 0s completed at 10:58 PM