

**Topic: Sushant Computer Builder** 



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Class - 12th A

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# Certificate

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This is certified to be the bonafide work of the student in the Python File Handling Project (binary file) during the year 2022-2023

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# Acknowledgement

I, Sushant Sejwal of class 12<sup>th</sup> A will express my sincere gratitude to my computer teacher Mr. Pawanjeet Singh for their support, guidance, teaching and encouragement for the 2 year time period from the starting class 11<sup>th</sup> to the ending of class 12<sup>th</sup>.

## Index

- 1. Overview of project
- 2. System Requirement
- 3. Screens of Data Required
- 4. Source Code
- 5. Output of the Project
- 6. Bibliography

### Sushant PC Builder

### **Overview of Project**

This project is a replica of a custom PC builder website or shop where people can build custom computer for them or they can buy individuals parts for their computer.

In order to run the program you first need data in SQL tables. The tables are used to store data of computer parts that are needed by the program to run the program.

To download the file that contain all the SQL code in order create set up database for the rest of the program use this link: https://github.com/SushantSejwal/SQL-Project

There are total 9 files and each file contains functions which are used to perform task like authentication, showing products, buying individual parts, show products in cart, remove products from the cart, show bill, get informations about product and one main file to run the whole program.

There are 8 command which the person has to to use while running the program.

Let's see all of the commands one by one.

- 1. **help**: this command will show all the commands that user can use.
- 2. **show**: this command will show all the products that present

in the database.

- 3. **custom**: this command will be used to build the custom computers.
- 4. **buy**: this command will be used to buy individual computer parts from the store.
- 5. **cart**: this command will show all the items that are present in the cart.
- 6. **rm**: this command will be used to remove products from the cart.
- 7. **bill**: this command will show the total price of the items that are present in the cart.
- 8. exit: this command will be used to terminate the program.

#### **System Requirement**

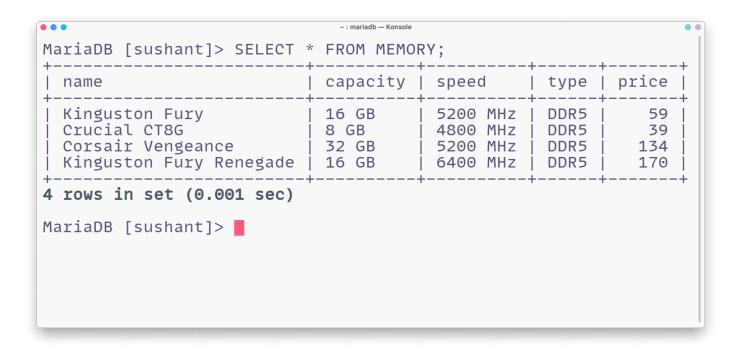
**Hardware**: any machine, computer, laptop, phone that can run linux (Arch, Debian, Red Hat, Open Suse, etc) or windows or macOS to run the program is OK.

**Software**: any Operating system is OK that can run python and MySQL like, linux (Arch, Debian, Red Hat, Open Suse, etc) or windows or macOS.

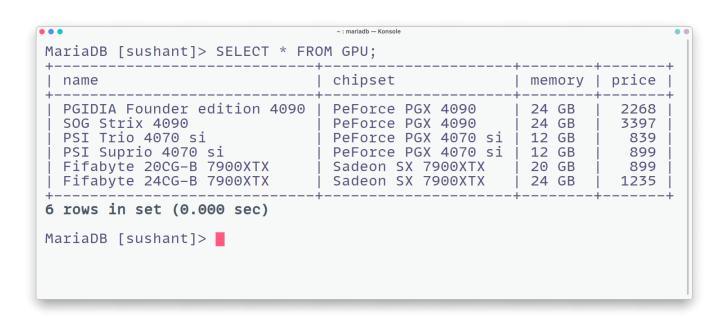
Python package **mysql-connector** should be installed with python.

You use this command to install **mysql-connector** pip install mysql-connector

#### **ScreenShots of Data Required**



```
~: mariadb — Konsole
MariaDB [sushant]> SELECT * FROM STORAGE;
                              capacity |
                                              type
 Gangster 870 Evo | 8 TB
Gangster 970 Evo | 1 TB
                                              SATA
                                                            683
                                                            99
  Gangster 970 Plus | 2 TB
Gangster 990 Pro | 2 TB
                                            M.2
                                                            183
                                                          289
 Gangster 870 Evo | 1 TB
Gangster 870 Evo | 4 TB
Gangster 960 Pro | 2 TB
                                           | SATA
| SATA
                                                            89
                                                           376
                                            | M.2
                                                            689
7 rows in set (0.000 sec)
MariaDB [sushant]>
```



#### **Source Code**

file: sql-code.sql (include all the code to set up database)

```
USE sushant;

CREATE TABLE CPU (
    name VARCHAR(35),
    cores VARCHAR(10),
    socket VARCHAR(10),
    price INT
);

CREATE TABLE CPU_COOLER(
    name VARCHAR(35),
    rpm VARCHAR(10),
    noise VARCHAR(10),
    size VARCHAR(10),
    price INT
);
```

CREATE DATABASE sushant;

```
CREATE TABLE MOTHERBOARD (
   name VARCHAR(35),
   socket VARCHAR(10),
   maxMemory VARCHAR(10),
price INT
);
CREATE TABLE MEMORY (
   name VARCHAR(35),
  capacity VARCHAR(10),
 speed VARCHAR(10),
type VARCHAR(10),
price INT
);
CREATE TABLE STORAGE (
   name VARCHAR(35),
   capacity VARCHAR(510),
type VARCHAR(10),
price INT
);
CREATE TABLE GPU (
   name VARCHAR(35),
chipset VARCHAR(30),
memory VARCHAR(10),
price INT
);
CREATE TABLE CABINET (
  name VARCHAR(35),
type VARCHAR(10),
price INT
);
CREATE TABLE PSU (
   name VARCHAR(35),
type VARCHAR(10),
efficiency VARCHAR(20),
  wattage VARCHAR(10),
price INT
);
CREATE TABLE MONITOR (
  name VARCHAR(35),
size VARCHAR(10),
resolution VARCHAR(20),
```

```
refreshRate VARCHAR(10),
price INT
);
INSERT INTO CPU VALUES
("PG Sygen 9 7950X", "16", "PM5", "4.5 GHz", <mark>568</mark>),
("PG Sygen 9 7900X", "12", "PM5", "4.7 GHz", <mark>474</mark>),
("PG Sygen 7 7700X", "8", "PM5", "4.5 GHz", 344), ("PG Sygen 7 7700", "8", "PM5", "3.8 GHz", 315);
INSERT INTO CPU VALUES
   ("SS p9-13900E", "16", "SGA170", "2.3 GHz", 594), ("SS p9-13900TE", "16", "SGA170", "2.0 GHz", 589),
("SS p7-13700E", "8", "SGA170", "2.9 GHz", 421),
("SS p7-13700TE", "8", "SGA170", "2.1 GHz", 409);
INSERT INTO CPU_COOLER VALUES
   ("ROG RYUJIN", "2000 RPM", "29 db", "360 mm", 309), ("be quite!", "1500 RPM", "12 db", "140 mm", 89),
("NZXT krken Z73", "1800 RPM", "21 db", "360 mm", 284), ("PS iCue H1500i", "2400 RPM", "10 db", "360 mm", 199), ("NZXT krken Z63", "1800 RPM", "21 db", "280 mm", 129),
("Noctua NH-Ui25", "1700 RPM", "25 db", "140 mm", 46);
INSERT INTO MOTHERBOARD VALUES
     ("Aorus b650 elite", "PM5", "128 GB", <mark>239</mark>),
     ("MSI X670E GOD LIKE", "PM5", "128 GB", 1299),
    ("ASRock X670E Taichi", "PM5", "128 GB", 499),
("MSI MEG z90 GOD LIKE", "SGA170", "128 GB", 1199),
 ("ROG maximus z690", "SGA170", "64 GB", 1108),
("ROG strix z690-I", "SGA170", "64 GB", 388);
INSERT INTO MEMORY VALUES
     ("Kinguston Fury", "16 GB", "5200 MHz", "DDR5", 59),
 ("Crucial CT8G", "8 GB", "4800 MHz", "DDR5", 39),
 ("Corsair Vengeance", "32 GB", "5200 MHz", "DDR5", 134),
("Kinguston Fury Renegade", "16 GB", "6400 MHz", "DDR5", 170);
INSERT INTO STORAGE VALUES
     ("Gangster 870 Evo", "8 TB", "SATA", 683),
("Gangster 970 Evo", "1 TB", "M.2", 99),
("Gangster 970 Plus", "2 TB", "M.2", 183),
("Gangster 990 Pro", "2 TB", "M.2", 289),
("Gangster 870 Evo", "1 TB", "SATA", 89), ("Gangster 870 Evo", "4 TB", "SATA", 376),
("Gangster 960 Pro", "2 TB", "M.2", 689);
```

```
INSERT INTO GPU VALUES
    ("PGIDIA Founder edition 4090", "PeForce PGX 4090", "24 GB", 2268),
    ("SOG Strix 4090", "PeForce PGX 4090", "24 GB", 3397),
   ("PSI Trio 4070 si", "PeForce PGX 4070 si", "12 GB", 839),
 ("PSI Suprio 4070 si", "PeForce PGX 4070 si", "12 GB", 899),
("Fifabyte 20CG-B 7900XTX", "Sadeon SX 7900XTX", "20 GB", 899),
("Fifabyte 24CG-B 7900XTX", "Sadeon SX 7900XTX", "24 GB", 1235);
INSERT INTO CABINET VALUES
    ("Corsair 4000D", "ATX", 104),
   ("Corsair iCUE", "ATX", 336),
 ("ASUS ROG helios", "EATX", 319),
("Corsair 5000X", "EATX", 214);
INSERT INTO PSU VALUES
   ("pegsus RM850X", "ATX", "80+ Gold", "850 watt", 137),
   ("pegsus RM1000X", "ATX", "80+ Gold", "1000 watt", 189),
("pegsus HX1200", "ATX", "80+ Platinum", "1200 watt", <mark>289</mark>),
("pegsus AX1000i", "ATX", "80+ Titanium", "1600 watt", 609),
("pegsus Awesome", "ATX", "80+ Platinum", "1300 watt", 481);
INSERT INTO MONITOR VALUES
    ("SG 27GN950-B", "27 inch", "3840 x 2160", "144 Hz", 697),
   ("SG UP3218K", "32 inch", "7680 x 4320", "90 Hz", 3928),
   ("SG Odyssey G7", "27 inch", "2560 x 1440", "240 Hz", 649),
("SG Odyssey G9", "49 inch", "5120 x 1440", "240 Hz", 1699),
("SG tuf gaming", "27 inch", "1920 x 1080", "280 Hz", <mark>289</mark>),
("SG EG220Q", "21 inch", "1920 x 1080", "144 Hz", 124);
file: ss-main.py (main file)
# importing time for some delay in output
from time import sleep
# importing modules to run the program
import user
import help
import show
import custom
import buy
import bag
import remove
import bill
# authentication step
userName, password, accoundExist = user.userLogin()
if accoundExist:
```

```
print("\n\n**-***-*** WELCOME TO SUSHANT COMPUTER BULDER ***-***-
***-**<sup>II</sup>)
print(" here you can build PCs and buy parts")
print(f"\n\n **-***-** Welcome {userName} **-***-**\n")
# running program
while accoundExist:
   cmd = input("Enter command or type 'help' for help\n \rightarrow ")
cmd = cmd.lower().strip()
sleep(0.1)
if \text{ cmd} = \text{"help" or cmd} = \text{"h":}
help.commands()
elif cmd = "show":
show.showProduct()
elif cmd = "custom":
custom.builder(userName)
elif cmd = "buy":
buy.purchase(userName)
elif cmd = "cart":
bag.cart(userName)
elif cmd = "rm":
remove.remove(userName)
elif cmd = "bill":
bill.total(userName)
elif cmd = "exit" or cmd = "e":
      exit()
else:
print("whoopse")
print()
else:
print("Login is required in order to proceed")
```

#### file: user.py (account authentication)

import mysql.connector as sql

```
database = sql.connect(
 host = "localhost",
user = "root",
password = ""
executer = database.cursor()
# *** checking database exist or not *** #
executer.execute("SHOW databases;")
databaseList = executer.fetchall()
databases = []
for i in databaseList:
databases.append(i[0])
if "consumer" in databases:
  executer.close()
  database = sql.connect(
  host = "localhost",
user = "root",
password = "",
database = "consumer"
executer = database.cursor()
else:
  executer.execute("CREATE DATABASE consumer;")
  database.commit()
  executer.close()
 database = sql.connect(
  host = "localhost",
 user = "root",
 password = "",
database = "consumer"
)
executer = database.cursor()
# *** checking table exist or not *** #
executer.execute("SHOW tables;")
tableList = executer.fetchall()
tables = []
for i in tableList:
tables.append(i[0])
if "ACCOUNTS" not in tables:
   executer.execute("""
  CREATE TABLE ACCOUNTS (
           username varchar(35) not null PRIMARY KEY,
  password varchar(15) not null
```

```
database.commit()
executer.execute("SELECT * FROM ACCOUNTS")
userData = executer.fetchall()
def createAccount():
while True:
 userName = input("Enter your username : ")
    password = input(f"Enter password for {userName} (max 15 char): ")
sure = input(f"\n User Name : {userName}\n Password : {password} \
\nare you sure these values are correct ? [yes/NO] default(NO) : ")
if sure = "y" or sure = "yes":
   executer.execute(f"""
              insert into ACCOUNTS values
                ("{userName}", "{password}")
          """)
   database.commit()
     print("account created")
      break
else:
print("\n\n")
continue
return(userName, password, True)
# ===***===*** sure ***===***=== #
def userLogin():
while True :
    logIn = input("do you have a account resistered ? [yes/no] : ")
logIn = logIn.lower().strip()
accountFound = False
accountCreated = False
if \log In = "y" \text{ or } \log In = "yes":
    userName = input("Enter your username : ")
password = input(f"Enter password for {userName} : ")
   for data in userData:
          if userName = data[0] and password = data[1]:
             returningName = data[0]
   returningPassword = data[1]
    accountFound = True
```

```
accountCreated = True
          break
 else:
           print("whopse, account not found\n")
          createChoice = input("Would you like to create new account ?
[yes/no] : ")
 createChoice = createChoice.lower().strip()
          if createChoice = "yes" or createChoice = "y":
              returningName, returningPassword, accountCreated =
createAccount()
       break
         elif createChoice = "no" or createChoice = "n":
             returningName = None
             returningPassword = None
             accountCreated = False
     break
if accountFound :
          break
elif logIn = "no" or logIn = "n":
      createChoice = input("Would you like to create new account ?
[yes/no] : ")
 createChoice = createChoice.lower().strip()
     if createChoice = "yes" or createChoice = "y":
           returningName, returningPassword, accountCreated = createAccount()
    break
elif createChoice = "no" or createChoice = "n":
  returningName = None
      returningPassword = None
          accountCreated = False
    break
return (returningName, returningPassword, accountCreated)
file: help.py (show all commands)
def commands():
   print("\n\nhere are the commands you can use\n")
   print("help : to display this message again")
   print("show : to see available products")
   print("custom : to build custom PC")
print("buy : to buy PC parts")
```

```
print("cart : to see items in your cart")
   print("rm : to remove items from cart")
   print("bill : to see total of price of items in cart")
   print("exit : to terminate the program")
print("\n")
file: show.py (show all products)
def showProduct():
   import mysql.connector as sql
from time import sleep
# database contaning all the data
database = sql.connect(
host = "localhost",
user = "root",
 password = "",
database = "sushant"
executer = database.cursor()
tables = ['CPU', 'CPU_COOLER', 'MOTHERBOARD', 'MEMORY', 'STORAGE',
'GPU', 'PSU', 'CABINET', 'MONITOR']
categoryDict = {}
def category():
print("\n\nchoose from Categories to see available Product")
   for num, category in enumerate(tables):
     if categorv = 'CPU_COOLER':
        print(f" {num} for : CPU COOLER")
              categoryDict[num] = category
    else:
   print(f" {num} for : {category}")
             categoryDict[num] = category
category()
# loop running flag
flag = "Locomotives are amazing"
while flag:
 choose = input(" \longrightarrow ")
if choose.isdigit() :
 choose = int(str(choose))
     if choose in categoryDict.keys():
        for key in categoryDict.keys():
         if choose = key:
              executer.execute(f"SELECT * FROM {categoryDict[key]}")
```

```
products = executer.fetchall()
                        executer.execute(f"DESC {categoryDict[key]}")
                        productsDescList = executer.fetchall()
                        productsDesc = []
                       for i in productsDescList :
                            productsDesc.append(i[0])
                        print(f"\n Available {categoryDict[key]} are :")
                       for num, product in enumerate(products):
                            print(f" {num}. {product[0]}")
                            for i in range(len(productsDesc)):
                                if productsDesc[i] = "name": pass
                                elif productsDesc[i] = "maxMemory":
                                    print(f" Max Memory - {product[i]}")
                                elif productsDesc[i] = "refreshRate":
                                    print(f" Refresh Rate - {product[i]}")
                                elif productsDesc[i] = "price":
                                  print(f" {productsDesc[i]} - $
{product[i]}")
                                else:
                                    productsDesc[i] =
productsDesc[i].lower().strip().title()
                                    print(f" {productsDesc[i]} -
{product[i]}")
                            print()
                            sleep(0.1) # a little gap in next ouput
                        break
               print("choose only from available option")
              continue
       else:
            print("choose only from available option")
           continue
      while True:
            again = input("do you wanna see product from another
category ? [yes/no] : ")
            again = again.lower().strip()
            if again ="yes" or again ="y":
                category()
               break
```

```
elif again = "no" or again = "n":
    print("\n")
    flag = False
    break

else:
    print("whoopse\n")
```

#### file: custom.py (build custom computer)

```
def builder(user):
   import mysql.connector as sql
from time import sleep
# database contaning all the data
databaseSushant = sql.connect(
host = "localhost",
user = "root",
password = "",
database = "sushant"
)
# database in which data will store
 databaseConsumer = sql.connect(
      host = "localhost",
  user = "root",
      password = "",
     database = "consumer"
)
dataExecuter = databaseSushant.cursor()
custExecuter = databaseConsumer.cursor()
custExecuter.execute("SHOW tables;")
custTableList = custExecuter.fetchall()
custTable = []
for i in custTableList :
custTable.append(i[0])
if f"{user}CUSTOM" not in custTable:
custExecuter.execute(f"""
        CREATE TABLE {user}CUSTOM (
              CPU varchar(30),
              COOLER varchar(30),
              MOTHERBOARD varchar(30),
             MEMORY varchar(30),
            STORAGE varchar(30).
     GPU varchar(30),
```

```
PSU varchar(30),
              CABINET varchar(30),
              MONITOR varchar(30),
             PRICE int
databaseConsumer.commit()
# ==***== CHOOSING PRODUCTS ==***== #
# product tables
dataTable = ['CPU', 'CPU_COOLER', 'MOTHERBOARD', 'MEMORY', 'STORAGE',
'GPU', 'PSU', 'CABINET', 'MONITOR'
choosedProductList = []
price = 0
for item in dataTable:
       dataExecuter.execute(f"SELECT * FROM {item}")
products = dataExecuter.fetchall()
dataExecuter.execute(f"DESC {item}")
productsDescList = dataExecuter.fetchall()
 productsDesc = []
for i in productsDescList :
productsDesc.append(i[0])
choosingDict = {}
print(f"\n\n Choosing {item}")
for num, product in enumerate(products):
          print(f" {num} for : {product[0]} + ${product[-1]}")
          choosingDict[num] = [product[0], product[-1]]
          for i in range(len(productsDesc)):
             if productsDesc[i] = "name" or productsDesc[i] =
"price": pass
          elif productsDesc[i] = "maxMemory":
         print(f" Max Memory - {product[i]}")
          elif productsDesc[i] = "refreshRate":
              print(f" Refresh Rate - {product[i]}")
    elif productsDesc[i] = "price":
              print(f" {productsDesc[i]} - ${product[i]}")
```

```
else:
                productsDesc[i] = productsDesc[i].lower().strip().title()
                print(f" {productsDesc[i]} - {product[i]}")
 print()
sleep(0.1) # a little gap in next ouput
while True:
choose = input(" \longrightarrow ")
if choose.isdigit() :
            choose = int(str(choose))
          if choose in choosingDict.keys():
                for key in choosingDict.keys():
                    if choose = key:
                         choosedProductList.append(choosingDict[key][0])
                         price += choosingDict[key][-1]
                        print(f" product choose : {choosingDict[key][0]}")
                         print(f" total price : ${price}")
                       break
           break
  else:
     print("choose only from available option")
       continue
else:
  print("choose only from available option")
continue
custExecuter.execute(f"""
     insert into {user}CUSTOM values
  ("{choosedProductList[0]}", "{choosedProductList[1]}",
"{choosedProductList[2]}", "{choosedProductList[3]}",
"{choosedProductList[4]}", "{choosedProductList[5]}",
"{choosedProductList[6]}", "{choosedProductList[7]}",
        "{choosedProductList[8]}", {price});
""")
databaseConsumer.commit()
print("\nPC has been add to cart\n\n")
custExecuter.close()
dataExecuter.close()
file: buy.py (buy individuals products)
def purchase(user):
import mysql.connector as sql
```

```
from time import sleep
# database contaning all the data
databaseSushant = sql.connect(
    host = "localhost",
user = "root",
password = "",
database = "sushant"
)
# database in which data will store
databaseConsumer = sql.connect(
   host = "localhost",
 user = "root",
password = "",
database = "consumer"
)
dataExecuter = databaseSushant.cursor()
custExecuter = databaseConsumer.cursor()
custExecuter.execute("SHOW tables;")
custTableList = custExecuter.fetchall()
custTable = []
for i in custTableList :
custTable.append(i[0])
if f"{user}PURCHASE" not in custTable:
custExecuter.execute(f"""
 CREATE TABLE {user}PURCHASE (
 name VARCHAR(30),
   category VARCHAR(30),
        price INT
databaseConsumer.commit()
# Purchasing Product
dataTable = ['CPU', 'CPU_COOLER', 'MOTHERBOARD', 'MEMORY', 'STORAGE',
'GPU', 'PSU', 'CABINET', 'MONITOR'
]
categoryDict = {}
def category():
   print("\n\nchoose one Categories to buy available Products")
for num, category in enumerate(dataTable):
    if category = 'CPU_COOLER':
    print(f" {num} for : CPU COOLER")
```

```
categoryDict[num] = category
            else:
                print(f" {num} for : {category}")
                categoryDict[num] = category
category()
  # loop running flag
   flag = "Locomotives are amazing"
    while flag:
        price = 0
        choosedProductList = []
        choosingDict = {}
        choose = input(" \longrightarrow ")
            if choose.isdigit() :
                choose = int(str(choose))
                if choose in categoryDict.keys():
                    for key in categoryDict.keys():
                        if choose = key:
                            dataExecuter.execute(f"SELECT * FROM
{categoryDict[key]}")
                            products = dataExecuter.fetchall()
                            dataExecuter.execute(f"DESC
{categoryDict[key]}")
                            productsDescList = dataExecuter.fetchall()
                            productsDesc = []
                            for i in productsDescList :
                                productsDesc.append(i[0])
                                print(f"\n Available {categoryDict[key]} are
:")
                                for num, product in enumerate(products):
                                    choosingDict[num] = [product[0],
categoryDict[key], product[-1]]
                                    print(f" {num} for : {product[0]}")
                                    for i in range(len(productsDesc)):
                                         if productsDesc[i] = "name": pass
                                         elif productsDesc[i] =
"maxMemory":
                                             print(f" Max Memory -
{product[i]}")
                                         elif productsDesc[i] =
"refreshRate":
                                             print(f" Refresh Rate -
```

```
{product[i]}")
                                         else:
                                             productsDesc[i] =
productsDesc[i].lower().strip().title()
                                             print(f" {productsDesc[i]} -
{product[i]}")
                                     print()
                                     sleep(0.1) # a little gap in next
ouput
                                 while True:
                                     chooseProd = input(" → ")
                                     if chooseProd.isdigit() :
                                         chooseProd = int(str(chooseProd))
                                         if chooseProd in
choosingDict.keys():
                                             for key in
choosingDict.keys():
                                                 if chooseProd = key:
                                                     choosedProductList.append
(choosingDict[key][0])
                                                     choosedProductList.append
(choosingDict[key][1])
                                                     choosedProductList.append
(choosingDict[key][-1])
price += choosingDict[key][-1]
                                                     print(f" product
choose : {choosingDict[key][0]}")
                                                     print(f" price : ${price}")
                                                     break
                                           break
                                         print("choose only from available
option")
                                         continue
                                 else:
                                     print("choose only from available
option")
                                     continue
                             custExecuter.execute(f"""
                                 insert into {user}PURCHASE values
                                 ("{choosedProductList[0]}",
                                 "{choosedProductList[1]}",
                                 {price});
                             111111
                             databaseConsumer.commit()
```

```
print("\nitem has been add to cart\n")
                           break
               else:
                   print("choose only from available option")
                 continue
           else:
               print("choose only from available option")
               continue
           while True:
               again = input("do you wanna buy another Product ? [yes/no]
: ")
               again = again.lower().strip()
               if again ="yes" or again ="y":
                   print()
                   category()
                   break
               elif again ="no" or again ="n":
                   print("\n")
                   flag = False
                   break
               else:
               print("whoopse\n")
custExecuter.close()
dataExecuter.close()
file: bag.py (show products in cart)
def cart(user):
import mysql.connector as sql
from time import sleep
# database in which data will store
   databaseConsumer = sql.connect(
       host = "localhost",
      user = "root",
      password = "",
  database = "consumer"
)
executer = databaseConsumer.cursor()
executer.execute(f"SELECT * FROM {user}CUSTOM;")
customData = executer.fetchall()
```

```
executer.execute(f"SELECT * FROM {user}PURCHASE;")
purchaseData = executer.fetchall()
if customData:
       print("\n\n Custom Builds\n")
   for num, build in enumerate(customData):
       print(f" custom build no. {num}")
       print(f" CPU - {build[0]}")
       print(f" Cooler - {build[1]}")
   print(f" Motherboard - {build[2]}")
 print(f" Memory - {build[3]}")
   print(f" Storage - {build[4]}")
   print(f" GPU - {build[5]}")
  print(f" PSU - {build[6]}")
   print(f" Cabinet - {build[7]}")
   print(f" Monitor - {build[8]}")
 print(f" Price - ${build[9]}")
  print()
 sleep(0.1)
print()
sleep(0.1)
if purchaseData:
       print("\n Individual PC parts\n\n")
 for num, item in enumerate(purchaseData):
       print(f" item no. {num}")
       print(f" Name - {item[0]}")
   print(f" Category - {item[1]}")
   print(f" Price - ${item[2]}")
print()
sleep(0.1)
file: remove.py (remove products from cart)
def remove(user):
  import mysql.connector as sql
from time import sleep
# database in which data will store
databaseConsumer = sql.connect(
host = "localhost",
user = "root",
password = "",
database = "consumer"
executer = databaseConsumer.cursor()
executer.execute(f"SELECT * FROM {user}CUSTOM;")
```

```
customData = executer.fetchall()
executer.execute(f"SELECT * FROM {user}PURCHASE;")
purchaseData = executer.fetchall()
def rmCustom():
    backUpdataList = []
dataDict = \{\}
print("\nCustom Builds\n")
for num, build in enumerate(customData):
          print(f" custom build no. {num}")
          print(f" CPU - {build[0]}")
          print(f" Cooler - {build[1]}")
          print(f" Motherboard - {build[2]}")
          print(f" Memory - {build[3]}")
          print(f" Storage - {build[4]}")
          print(f" GPU - {build[5]}")
        print(f" PSU - {build[6]}")
          print(f" Cabinet - {build[7]}")
          print(f" Monitor - {build[8]}")
        print(f" Price - ${build[9]}")
 dataDict[num] = build
          print()
          sleep(0.1)
print("choose from above to remove from custom build")
while True:
     choose = input(" \longrightarrow ")
     if choose.isdigit():
        choose = int(choose)
            if choose in dataDict.keys():
                for key in dataDict.keys():
                 if choose = key:
                       pass
                    else:
                backUpdataList.append(dataDict[key])
         break
       else:
     print("choose only from available option")
     continue
    else:
   print("choose only from available option")
     continue
executer.execute(f"DELETE FROM {user}CUSTOM")
for dataTup in backUpdataList:
executer.execute(f"""
      insert into {user}CUSTOM values
```

```
("{dataTup[0]}", "{dataTup[1]}", "{dataTup[2]}",
             "{dataTup[3]}", "{dataTup[4]}", "{dataTup[5]}",
            "{dataTup[6]}", "{dataTup[7]}", "{dataTup[8]}",
          {dataTup[9]});
databaseConsumer.commit()
print("Custom build has been removed")
def rmIndividual():
backUpdataList = []
dataDict = {}
print("\nIndividual PC Parts\n")
   for num, build in enumerate(purchaseData):
          print(f" custom build no. {num}")
          print(f" Name - {build[0]}")
          print(f" Category - {build[1]}")
          print(f" Price - ${build[2]}")
          dataDict[num] = build
          print()
      sleep(0.1)
print("choose from above item number to remove ")
 while True:
     choose = input(" \longrightarrow ")
       if choose.isdigit():
            choose = int(choose)
             if choose in dataDict.keys():
                 for key in dataDict.keys():
                    if choose = key:
                       pass
                     else:
                   backUpdataList.append(dataDict[key])
            break
           else:
            print("choose only from available option")
        continue
     else:
      print("choose only from available option")
     continue
   executer.execute(f"DELETE FROM {user}PURCHASE")
for dataTup in backUpdataList:
          executer.execute(f"""
             insert into {user}PURCHASE values
             ("{dataTup[0]}", "{dataTup[1]}", "{dataTup[2]}");
databaseConsumer.commit()
```

```
print("Item has been removed")
       print("\n\ndo wanna remove item from Custom build or Individual
Parts")
       print(" Enter 1 for : Custom Build PC")
       print(" Enter 2 for : Individual PC Parts")
   print(" Enter 3 for : Leave")
   while True:
    customOrIndi = input(" \longrightarrow ")
      if customOrIndi.isdigit():
      customOrIndi = int(customOrIndi)
             if customOrIndi = 1:
                 rmCustom()
                print("\n")
                break
      elif customOrIndi = 2:
                rmIndividual()
                print("\n")
        break
            elif customOrIndi = 3:
                print("\n")
       break
      else:
                 print("choose only from available option")
         continue
  else:
       print("choose only from available option")
   continue
file: bill.py (show total price of products in bag)
def total(user):
  import mysql.connector as sql
from time import sleep
# database in which data will store
databaseConsumer = sql.connect(
host = "localhost",
user = "root",
password = "",
database = "consumer"
)
executer = databaseConsumer.cursor()
```

```
executer.execute(f"SELECT * FROM {user}CUSTOM;")
customData = executer.fetchall()

executer.execute(f"SELECT * FROM {user}PURCHASE;")
purchaseData = executer.fetchall()

total = 0

for i in customData:
    total += i[-1]

for i in purchaseData:
    total += i[-1]

print(f"\n\ntotal price of items in cart : ${total}\n\n")
executer.close()
```

you can download all the source code form here: https://github.com/SushantSejwal/SQL-Project

### **Output of Project**

```
do you have a account resistered ? [yes/no] : yes
Enter your username : Diesel
Enter password for Diesel : Awesome

**-**-*** WELCOME TO SUSHANT COMPUTER BULDER ***-***-**
here you can build PCs and buy parts

**-**-** Welcome Diesel **-**-**
```

```
Enter command or type 'help' for help
-> help
```

here are the commands you can use

help : to display this message again

show : to see available products

custom : to build custom PC
buy : to buy PC parts

cart : to see items in your cart
rm : to remove items from cart

 $\mbox{bill} \quad : \mbox{ to see total of price of items in cart}$ 

exit : to terminate the program

Enter command or type 'help' for help
-> show

choose from Categories to see available Product

0 for : CPU

1 for : CPU COOLER
2 for : MOTHERBOARD

3 for : MEMORY
4 for : STORAGE

5 for : GPU 6 for : PSU

7 for : CABINET
8 for : MONITOR

--> 8

Available MONITOR are :

0. SG 27GN950-B
 Size - 27 inch
 Resolution - 3840 x 2160
 Refresh Rate - 144 Hz
 price - \$697

1. SG UP3218K

Size - 32 inch
Resolution - 7680 x 4320
Refresh Rate - 90 Hz
price - \$3928

2. SG Odyssey G7
Size - 27 inch
Resolution - 2560 x 1440
Refresh Rate - 240 Hz
price - \$649

3. SG Odyssey G9
Size - 49 inch
Resolution - 5120 x 1440
Refresh Rate - 240 Hz
price - \$1699

4. SG tuf gaming
Size - 27 inch
Resolution - 1920 x 1080
Refresh Rate - 280 Hz
price - \$289

5. SG EG220Q
Size - 21 inch
Resolution - 1920 x 1080
Refresh Rate - 144 Hz
price - \$124

do you wanna see product from another category ? [yes/no] : yes

choose from Categories to see available Product

0 for : CPU

1 for : CPU COOLER
2 for : MOTHERBOARD

3 for : MEMORY 4 for : STORAGE

5 for : GPU 6 for : PSU 7 for : CABINET
8 for : MONITOR

--> 4

Available STORAGE are:
0. Gangster 870 Evo
Capacity - 8 TB
Type - SATA
price - \$683

1. Gangster 970 Evo Capacity - 1 TB Type - M.2 price - \$99

2. Gangster 970 Plus
Capacity - 2 TB
Type - M.2
price - \$183

3. Gangster 990 Pro Capacity - 2 TB Type - M.2 price - \$289

4. Gangster 870 Evo Capacity - 1 TB Type - SATA price - \$89

5. Gangster 870 Evo Capacity - 4 TB Type - SATA price - \$376

6. Gangster 960 Pro Capacity - 2 TB Type - M.2 price - \$689

```
choose from Categories to see available Product
0 for : CPU
1 for : CPU COOLER
2 for : MOTHERBOARD
3 for : MEMORY
4 for : STORAGE
5 for : GPU
6 for : PSU
7 for : CABINET
8 for : MONITOR
--> 3
Available MEMORY are :
Kinguston Fury
Capacity - 16 GB
Speed - 5200 MHz
Type - DDR5
price - $59
1. Crucial CT8G
Capacity - 8 GB
Speed - 4800 MHz
Type - DDR5
price - $39
2. Corsair Vengeance
Capacity - 32 GB
Speed - 5200 MHz
Type - DDR5
price - $134
3. Kinguston Fury Renegade
Capacity - 16 GB
Speed - 6400 MHz
Type - DDR5
price - $170
```

```
do you wanna see product from another category ? [yes/no] : n
Enter command or type 'help' for help
-> custom
Choosing CPU
0 for : PG Sygen 9 7950X + $568
Cores - 16
Socket - PM5
Speed - 4.5 GHz
1 for : PG Sygen 9 7900X + $474
Cores - 12
Socket - PM5
Speed - 4.7 GHz
2 for : PG Sygen 7 7700X + $344
Cores - 8
Socket - PM5
Speed - 4.5 GHz
3 for : PG Sygen 7 7700 + $315
Cores - 8
Socket - PM5
Speed - 3.8 GHz
4 for : SS p9-13900E + $594
Cores - 16
Socket - SGA170
Speed - 2.3 GHz
5 for : SS p9-13900TE + $589
Cores - 16
Socket - SGA170
Speed - 2.0 GHz
6 for : SS p7-13700E + $421
Cores - 8
```

Socket - SGA170 Speed - 2.9 GHz 7 for : SS p7-13700TE + \$409 Cores - 8 Socket - SGA170 Speed - 2.1 GHz --> 1 product choose: PG Sygen 9 7900X total price : \$474 Choosing CPU\_COOLER 0 for : ROG RYUJIN + \$309 Rpm - 2000 RPM Noise - 29 db Size - 360 mm

1 for : be quite! + \$89

Rpm - 1500 RPM Noise - 12 db Size - 140 mm

2 for: NZXT krken Z73 + \$284

Rpm - 1800 RPM Noise - 21 db Size - 360 mm

3 for : PS iCue H1500i + \$199

Rpm - 2400 RPM Noise - 10 db Size - 360 mm

4 for : NZXT krken Z63 + \$129

Rpm - 1800 RPM Noise - 21 db Size - 280 mm

5 for : Noctua NH-Ui25 + \$46

Rpm - 1700 RPM Noise - 25 db Size - 140 mm

--> 0

product choose : ROG RYUJIN

total price: \$783

Choosing MOTHERBOARD

0 for : Aorus b650 elite + \$239

Socket - PM5

Max Memory - 128 GB

1 for : MSI X670E GOD LIKE + \$1299

Socket - PM5

Max Memory - 128 GB

2 for : ASRock X670E Taichi + \$499

Socket - PM5

Max Memory - 128 GB

3 for : MSI MEG z90 GOD LIKE + \$1199

Socket - SGA170

Max Memory - 128 GB

4 for : ROG maximus z690 + \$1108

Socket - SGA170

Max Memory - 64 GB

5 for : ROG strix z690-I + \$388

Socket - SGA170

Max Memory - 64 GB

--> 3

product choose: MSI MEG z90 GOD LIKE

total price : \$1982

Choosing MEMORY

```
0 for : Kinguston Fury + $59
Capacity - 16 GB
Speed - 5200 MHz
Type - DDR5
1 for : Crucial CT8G + $39
Capacity - 8 GB
Speed - 4800 MHz
Type - DDR5
2 for : Corsair Vengeance + $134
Capacity - 32 GB
Speed - 5200 MHz
Type - DDR5
3 for : Kinguston Fury Renegade + $170
Capacity - 16 GB
Speed - 6400 MHz
Type - DDR5
-->
     3
product choose : Kinguston Fury Renegade
total price : $2152
Choosing STORAGE
0 for : Gangster 870 Evo + $683
Capacity - 8 TB
Type - SATA
1 for : Gangster 970 Evo + $99
Capacity - 1 TB
Type - M.2
2 for : Gangster 970 Plus + $183
Capacity - 2 TB
Type - M.2
3 for : Gangster 990 Pro + $289
Capacity - 2 TB
```

```
Type - M.2
4 for : Gangster 870 Evo + $89
Capacity - 1 TB
Type - SATA
5 for : Gangster 870 Evo + $376
Capacity - 4 TB
Type - SATA
6 for : Gangster 960 Pro + $689
Capacity - 2 TB
Type - M.2
--> 6
product choose : Gangster 960 Pro
total price : $2841
Choosing GPU
0 for : PGIDIA Founder edition 4090 + $2268
Chipset - PeForce PGX 4090
Memory - 24 GB
1 for : SOG Strix 4090 + $3397
Chipset - PeForce PGX 4090
Memory - 24 GB
2 for : PSI Trio 4070 si + $839
Chipset - PeForce PGX 4070 si
Memory - 12 GB
3 for : PSI Suprio 4070 si + $899
Chipset - PeForce PGX 4070 si
Memory - 12 GB
4 for : Fifabyte 20CG-B 7900XTX + $899
Chipset - Sadeon SX 7900XTX
Memory - 20 GB
```

5 for : Fifabyte 24CG-B 7900XTX + \$1235 Chipset - Sadeon SX 7900XTX Memory - 24 GB --> 1 product choose : SOG Strix 4090 total price : \$6238 Choosing PSU 0 for : pegsus RM850X + \$137Type - ATX Efficiency - 80+ Gold Wattage - 850 watt 1 for : pegsus RM1000X + \$189 Type - ATX Efficiency - 80+ Gold Wattage - 1000 watt 2 for : pegsus HX1200 + \$289 Type - ATX Efficiency - 80+ Platinum Wattage - 1200 watt 3 for : pegsus AX1000i + \$609 Type - ATX Efficiency - 80+ Titanium Wattage - 1600 watt 4 for : pegsus Awesome + \$481 Type - ATX Efficiency - 80+ Platinum Wattage - 1300 watt -->

product choose : pegsus AX1000i

total price : \$6847

Choosing CABINET

0 for : Corsair 4000D + \$104

Type - ATX

1 for : Corsair iCUE + \$336

Type - ATX

2 for : ASUS ROG helios + \$319

Type - EATX

3 for : Corsair 5000X + \$214

Type - EATX

--> 2

product choose : ASUS ROG helios

total price : \$7166

Choosing MONITOR

0 for : SG 27GN950-B + \$697

Size - 27 inch

Resolution - 3840 x 2160

Refresh Rate - 144 Hz

1 for : SG UP3218K + \$3928

Size - 32 inch

Resolution - 7680 x 4320

Refresh Rate - 90 Hz

2 for : SG Odyssey G7 + \$649

Size - 27 inch

Resolution - 2560 x 1440

Refresh Rate - 240 Hz

3 for : SG Odyssey G9 + \$1699

Size - 49 inch

Resolution - 5120 x 1440

Refresh Rate - 240 Hz

4 for : SG tuf gaming + \$289

Size - 27 inch

Resolution - 1920 x 1080

Refresh Rate - 280 Hz

5 for : SG EG220Q + \$124

Size - 21 inch

Resolution - 1920 x 1080

Refresh Rate - 144 Hz

--> 3

product choose: SG Odyssey G9

total price : \$8865

PC has been add to cart

Enter command or type 'help' for help -> buy

choose one Categories to buy available Products

0 for : CPU

1 for : CPU COOLER

2 for : MOTHERBOARD

3 for : MEMORY

4 for : STORAGE

5 for : GPU

6 for : PSU

7 for : CABINET

8 for : MONITOR

--> 3

Available MEMORY are :

0 for : Kinguston Fury

Capacity - 16 GB

Speed - 5200 MHz

Type - DDR5

Price - 59

1 for : Crucial CT8G

```
Capacity - 8 GB
Speed - 4800 MHz
Type - DDR5
Price - 39
2 for : Corsair Vengeance
Capacity - 32 GB
Speed - 5200 MHz
Type - DDR5
Price - 134
3 for : Kinguston Fury Renegade
Capacity - 16 GB
Speed - 6400 MHz
Type - DDR5
Price - 170
--> 3
product choose : Kinguston Fury Renegade
price : $170
item has been add to cart
do you wanna buy another Product ? [yes/no] : y
choose one Categories to buy available Products
0 for : CPU
1 for : CPU COOLER
2 for : MOTHERBOARD
3 for : MEMORY
4 for : STORAGE
5 for : GPU
6 for : PSU
7 for : CABINET
8 for : MONITOR
--> 3
Available MEMORY are :
```

```
0 for : Kinguston Fury
Capacity - 16 GB
Speed - 5200 MHz
Type - DDR5
Price - 59
1 for : Crucial CT8G
Capacity - 8 GB
Speed - 4800 MHz
Type - DDR5
Price - 39
2 for : Corsair Vengeance
Capacity - 32 GB
Speed - 5200 MHz
Type - DDR5
Price - 134
3 for : Kinguston Fury Renegade
Capacity - 16 GB
Speed - 6400 MHz
Type - DDR5
Price - 170
--> 3
product choose : Kinguston Fury Renegade
price : $170
item has been add to cart
do you wanna buy another Product ? [yes/no] : y
choose one Categories to buy available Products
0 for : CPU
1 for : CPU COOLER
2 for: MOTHERBOARD
3 for : MEMORY
```

4 for : STORAGE

5 for : GPU

6 for : PSU

7 for : CABINET

8 for : MONITOR

--> 4

Available STORAGE are :

0 for : Gangster 870 Evo

Capacity - 8 TB

Type - SATA

Price - 683

1 for : Gangster 970 Evo

Capacity - 1 TB

Type - M.2

Price - 99

2 for : Gangster 970 Plus

Capacity - 2 TB

Type - M.2

Price - 183

3 for : Gangster 990 Pro

Capacity - 2 TB

Type - M.2

Price - 289

4 for : Gangster 870 Evo

Capacity - 1 TB

Type - SATA

Price - 89

5 for : Gangster 870 Evo

Capacity - 4 TB

Type - SATA

Price - 376

6 for : Gangster 960 Pro

Capacity - 2 TB

Type - M.2

--> 0

product choose : Gangster 870 Evo

price : \$683

item has been add to cart

do you wanna buy another Product ? [yes/no] : n

Enter command or type 'help' for help
-> cart

### Custom Builds

custom build no. 0

CPU - PG Sygen 9 7950X

Cooler - ROG RYUJIN

Motherboard - MSI X670E GOD LIKE

Memory - Kinguston Fury Renegade

Storage - Gangster 960 Pro
GPU - SOG Strix 4090
PSU - pegsus AX1000i
Cabinet - Corsair iCUE
Monitor - SG 27GN950-B

Price - \$8074

custom build no. 1

CPU - PG Sygen 9 7900X

Cooler - ROG RYUJIN

Motherboard - MSI MEG z90 GOD LIKE

Memory - Kinguston Fury Renegade

Storage - Gangster 960 Pro
GPU - SOG Strix 4090
PSU - pegsus AX1000i
Cabinet - ASUS ROG helios
Monitor - SG Odyssey G9

Price - \$8865

#### Sushant 48

# Individual PC parts

item no. 0 Name - Kinguston Fury Renegade Category - MEMORY Price - \$170 item no. 1 Name - Kinguston Fury Renegade Category - MEMORY Price - \$170 item no. 2 Name - Gangster 870 Evo Category - STORAGE Price - \$683 item no. 3 - Kinguston Fury Renegade Category - MEMORY Price - \$170 item no. 4 Name - Kinguston Fury Renegade Category - MEMORY Price - \$170 item no. 5 Name - Gangster 870 Evo Category - STORAGE Price - \$683 Enter command or type 'help' for help

-> rm

do wanna remove item from Custom build or Individual Parts

Enter 1 for : Custom Build PC

Enter 2 for : Individual PC Parts

Enter 3 for : Leave

--> 1

## Custom Builds

custom build no. 0

CPU - PG Sygen 9 7950X

Cooler - ROG RYUJIN

Motherboard - MSI X670E GOD LIKE

Memory - Kinguston Fury Renegade

Storage - Gangster 960 Pro
GPU - SOG Strix 4090
PSU - pegsus AX1000i
Cabinet - Corsair iCUE
Monitor - SG 27GN950-B

Price - \$8074

custom build no. 1

CPU - PG Sygen 9 7900X

Cooler - ROG RYUJIN

Motherboard - MSI MEG z90 GOD LIKE Memory - Kinguston Fury Renegade

Storage - Gangster 960 Pro
GPU - SOG Strix 4090
PSU - pegsus AX1000i
Cabinet - ASUS ROG helios
Monitor - SG Odyssey G9

Price - \$8865

choose from above to remove from custom build

--> 1

Custom build has been removed

Enter command or type 'help' for help
-> rm

do wanna remove item from Custom build or Individual Parts

Enter 1 for : Custom Build PC

Enter 2 for : Individual PC Parts

Enter 3 for : Leave

--> 2

Individual PC Parts

custom build no. 0

Name - Kinguston Fury Renegade

Category - MEMORY Price - \$170

custom build no. 1

Name - Kinguston Fury Renegade

Category - MEMORY Price - \$170

custom build no. 2

Name - Gangster 870 Evo

Category - STORAGE Price - \$683

custom build no. 3

Name - Kinguston Fury Renegade

Category - MEMORY Price - \$170

custom build no. 4

Name - Kinguston Fury Renegade

Category - MEMORY Price - \$170

custom build no. 5

Name - Gangster 870 Evo

Category - STORAGE Price - \$683

choose from above item number to remove

--> 0

Item has been removed

Enter command or type 'help' for help
-> rm

do wanna remove item from Custom build or Individual Parts

Enter 1 for : Custom Build PC

Enter 2 for : Individual PC Parts

Enter 3 for : Leave

--> 2

Individual PC Parts

custom build no. 0

Name - Kinguston Fury Renegade

Category - MEMORY Price - \$170

custom build no. 1

Name - Gangster 870 Evo

Category - STORAGE Price - \$683

custom build no. 2

Name - Kinguston Fury Renegade

Category - MEMORY Price - \$170

custom build no. 3

Name - Kinguston Fury Renegade

Category - MEMORY Price - \$170

custom build no. 4

Name - Gangster 870 Evo

Category - STORAGE Price - \$683

```
choose from above item number to remove
-->
Item has been removed
Enter command or type 'help' for help
-> rm
do wanna remove item from Custom build or Individual Parts
Enter 1 for : Custom Build PC
Enter 2 for : Individual PC Parts
Enter 3 for : Leave
--> 2
Individual PC Parts
custom build no. 0
Name - Gangster 870 Evo
Category - STORAGE
Price - $683
custom build no. 1
Name - Kinguston Fury Renegade
Category - MEMORY
Price - $170
custom build no. 2
Name - Kinguston Fury Renegade
Category - MEMORY
Price - $170
custom build no. 3
Name - Gangster 870 Evo
Category - STORAGE
Price - $683
choose from above item number to remove
--> 3
```

```
Enter command or type 'help' for help
-> bill
total price of items in cart : $9097
Enter command or type 'help' for help
-> help
here are the commands you can use
help : to display this message again
show : to see available products
custom : to build custom PC
buy : to buy PC parts
cart : to see items in your cart
rm : to remove items from cart
bill : to see total of price of items in cart
exit : to terminate the program
Enter command or type 'help' for help
-> exit
```

# **Bibliography**

- 1. google.com (for computer product details)
- 2. Python Crash Course, 2nd Edition. Book by Eric Matthes