#Task 1

item\_number\_list = list(range(1, 12))

item\_name\_list = ["phone", "postcard", "car", "pen", "tablet", "pencil case", "laptop", "mouse", "keyboard", "motherboard", "monitor"]

description\_list = ["iPhone XS", "New Zealand City View", "BMW i8",

"Schneider Limited Edition", "iPad Pro 12.9in", "Kokuyo Limited",

"ASUS Zenbook Pro 15", "Magic Mouse", "Cherry MX. 8.0",

"MSI Brand", "Samsung Brand 21 inch"]

reserve\_price\_list = [300, 15, 50000, 100, 2027, 50, 1099, 129, 699, 1000000000, 6000, 00]

bid\_number\_list = [0]\*11

# Task 2

highest\_bid\_price\_list = [0]\*11

buyer\_number\_list = ["1", "2", "3", "4", "5", "6"]

number\_of\_bid = [0]\*11

sold = [False]\*11

# used in task 3

item\_highest\_bid\_holder\_list = [""]\*11

total\_auction\_fee = 0

total\_sold\_item = 0

total\_money = 0

# Print all item and item number

while True:

for i in range(len(item\_name\_list)):

item\_number\_current = str(item\_number\_list[i])

current\_item\_name = str(item\_name\_list[i])

print(item\_number\_current + ": " + current\_item\_name)

restart = False

exit\_loop = False

name\_search = input("Please enter the item name or write 'display\_list': ")

name\_search = name\_search.casefold()

if name\_search == "display\_list":

displayInfo()

elif name\_search not in item\_name\_list:

print("Invalid input. Item not found. Try again!\n")

continue

else:

search\_index = item\_name\_list.index(name\_search)

current\_description = description\_list[search\_index]

current\_bid\_count = number\_of\_bid[search\_index]

sold\_status = sold[search\_index]

item\_highest\_bid = float(highest\_bid\_price\_list[search\_index])

item\_highest\_bid\_with\_dollar\_sign = "$" + str(item\_highest\_bid)

print("Description: " + current\_description)

print("Current highest bid is " + item\_highest\_bid\_with\_dollar\_sign)

print("Number of Bids: %d" % current\_bid\_count)

if sold\_status:

print("Sold: Yes")

else:

print("Sold: No")

if sold\_status != True:

purchase\_status = input("\nDo you want to purchase? Y/N: ")

purchase\_status = purchase\_status.casefold()

while purchase\_status == "y":

buyer\_number\_check = str(input("Please enter your buyer number: "))

while buyer\_number\_check in buyer\_number\_list:

print("\nIdentity verified.")

buyer\_bid = float(input("Please enter your bid: "))

# no type check or type conversion is need because if it is not a number,

# then it will automatically fail the condition

if buyer\_bid > item\_highest\_bid:

item\_highest\_bid = buyer\_bid

highest\_bid\_price\_list[search\_index] = float(item\_highest\_bid)

bid\_number\_list[search\_index] += 1

item\_highest\_bid\_holder\_list[search\_index] = buyer\_number\_check

print("Congratulation! Your bid is the current highest.")

number\_of\_bid[search\_index]+= 1;

print("\nYet you are free to give another higher bid.")

while True:

further\_bid = input("Do you want to give another bid or allow others to bid? Y/N : ")

further\_bid = further\_bid.casefold()

if further\_bid == "y":

restart = True

break

elif further\_bid == "n":

exit\_loop = True

break

else:

print("Sorry, error in input")

continue

else:

print("Your bid is lower than the current highest bid, please try again.\n")

continue

if restart:

break

elif exit\_loop:

break

else:

print("Identify verification failed. Please try again.")

continue

if restart:

break

elif exit\_loop:

break

else:

print("Purchasing process canceled.\n")

continue

if restart:

print()

continue

elif exit\_loop:

break

#task 3

#def displayInfo():

print("\n\n------------------------------------------------------------")

for i in range(1,11):

if sold[i] != True and highest\_bid\_price\_list[i] > reserve\_price\_list[i]:

sold[i] = True

total\_sold\_item += 1

total\_money += highest\_bid\_price\_list[i]

total\_auction\_fee += (highest\_bid\_price\_list[i]\*0.10)

#total money and total auction company fee

print("\n\nTotal Money: %d" % total\_money)

print("Total Auction Company Fee: %d" % total\_auction\_fee)

print("Total Sold Items: %d " % total\_sold\_item)

#sold items

print("\n\nSold Items: ")

flag = True

soldItemsNumber = 0

for i in range (1,11):

if sold[i] == True:

flag = False

soldItemsNumber += 1

print("Item Name: %s " % item\_name\_list[i])

print("Description: %s " % description\_list[i])

print("Number of Bids: %d "% number\_of\_bid[i])

print("Sold Money: %d "% highest\_bid\_price\_list[i])

if flag:

print("No item sold.\n")

else:

print("\nTotal %d Sold Items" % soldItemsNumber)

#unsold items

print("\n\nUnsold Items: ")

flag = True

notSoldItemsNumber = 0

for i in range (1,11):

if sold[i] == False and number\_of\_bid[i] > 0:

flag = False

notSoldItemsNumber += 1

print("Item Name: %s " % item\_name\_list[i])

print("Description: %s " % description\_list[i])

print("Number of Bids: %d "% number\_of\_bid[i])

print("Highest Bid: %d "% highest\_bid\_price\_list[i])

if flag:

print("No item found.\n")

else:

print("\nTotal %d Unsold Items" % notSoldItemsNumber)

#not bid items

print("\n\nNot Bid Items: ")

flag = True

notBidItemsNumber = 0

for i in range (1,11):

if sold[i] == False and number\_of\_bid[i] == 0:

flag = False

notBidItemsNumber += 1

print("Item Name: %s " % item\_name\_list[i])

print("Description: %s " % description\_list[i])

print("Number of Bids: %d "% number\_of\_bid[i])

print("Reserve Money: %d "% highest\_bid\_price\_list[i])

if flag:

print("No item found.\n")

else:

print("\nTotal %d Not Bid Items" % notBidItemsNumber)