```
import pandas as pd

#Displays the main menu and collects choice of menu item

def menu():

    flag = True

    while flag:
        print("################################################")
        print("Welcome! Please choose an option from the list")
        print("1. Show total sales for a specific item")
        #Will ask for an item from the menu so that it can get the sales data for the
seleceted item.
        print("2. ")

        main_menu_choice = input("Please enter the number of your choice (1-2): ")

        try:
            int(main_menu_choice)
        except:
            print("Sorry, you did not enter a valid choice")
            #User did not enter a valid choice, will have to enter again.
            flag = True
        else:
            if int(main_menu_choice) < 1 or int(main_menu_choice) > 2:
                print("Sorry, you did not enter a valid choice")
                flag = True
            else:
                return int(main_menu_choice)

#Menu item selection form user and validates it
def get_product_choice():

    flag = True

    while flag:
        print("########################################################")
        print("Please choose a menu item from the list:")
        #Menu items are listed below so that the client can choose from them when they
are printed.
        print("Please enter the number of the item (1-8)")
        print("1.  Nachos")
        print("2.  Soup")
        print("3.  Burger")
        print("4.  Brisket")
        print("5.  Ribs")
        print("6.  Corn")
        print("7.  Fries")
        print("8.  Salad")
        print("########################################################")

        menu_list = ["Nachos","Soup","Burger", "Brisket","Ribs","Corn", "Fries",
"Salad"]
        #Menu list is in order numbered as well.

        item_choice = input("Please enter the number of your choice (1-8): ")
        #Input so that they can enter the food number they want.

        try:
            int(item_choice)
        except:
            print("Sorry, you did not enter a valid choice")
            #Client did not enter a valid number
            flag = True
```

```
        else:
            if int(item_choice) < 1 or int(item_choice) > 8:
                print("Sorry, you did not enter a valid choice")
                flag = True
            else:
                item_name = menu_list[int(item_choice)-1]
                return item_name

#Gets user input of start of date range
#Converts to a date to check data entry is in correct format and then returns it as a
string
def get_start_date():

    flag = True

    while flag:
        start_date = input('Please enter start date for your time range (DD/MM/YYYY) :
')

        try:
           pd.to_datetime(start_date)
        except:
            print("Sorry, you did not enter a valid date")
            flag = True
        else:
            flag = False

    return start_date

#Gets user input of end of date range
#Converts to a date to check data entry is in correct format and then returns it as a
string
def get_end_date():

    flag = True

    while flag:
        end_date = input('Please enter end date for your time range (DD/MM/YYYY) : ')
        #Get user to input the end date for the date they want the data to stop.

        try:
           pd.to_datetime(end_date)
        except:
            print("Sorry, you did not enter a valid date")
            flag = True
        else:
            flag = False

    return end_date


#imports data set and extracts data and returns data for a specific menu item within a
user defined range
def get_selected_item(item, startdate, enddate):
    df1 = pd.read_csv("Task4a_data.csv")
    df2 = df1.loc[df1['Menu Item'] == item]
    df3 = df2.loc[:,startdate:enddate]

    return df3


main_menu = menu()
if main_menu == 1:

    item = get_product_choice()
```

```
    start_date = get_start_date()
    end_date = get_end_date()
    #This gets the data, showing the start and end for the data.

    extracted_data = get_selected_item(item, start_date, end_date)


    print("Here is the sales data for {} between dates {} and {}:".format(item,
start_date, end_date))
    #Data is printed
    extract_no_index = extracted_data.to_string(index=False)

    print(extract_no_index)
else:
    print('This part of the program is still under development')
    # This section of the program is still being developed, so it can't be used.
```