Kendriya Vidyalaya, Berhampur



तत् त्वं पूषन् अपावृणु केन्द्रीय विद्यालय संगठन

Computer Science Project (2020-21)

ShipIt

Want best prices for your shipment?

Just ShipIt!

Developed By:
P.Biswanath Patra

Guided By:
Mrs. Sumanpreet Kaur

ACKNOWLEDGEMENT

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I thank Smt. Sumanpreet Kaur for her guidance and help in completion of this project. I also acknowledge the support provided by our principal Shri Bighneswar Patnaik and all the other Students of Class XII-"A" of the Vidyalaya who helped in the completion of the project in the limited time frame.

CERTIFICATE

I P.Biswanath Patra of Class XII "A", Roll no. ______, studying Computer Science in Kendriya Vidyalaya, Berhampur do hereby declare that the submitted project: "ShipIt" is my original creative work or is the modified and developed form of an existing model and to the best of my knowledge, this project has never been developed by any other person or organisation in this form.

P.Biswanath Patra XII A Dev

Smt. Sumanpreet Kaur (PGT CS)
Guide Teacher

Shri. Bighneswar Patnaik Date:
Principal, KV Bam

The IDEA

Recently, many shipping services are available for consumers in the market, with this wide variety, people get confused upon:

- Which Service to choose?
- Which service is Cheapest?
- Which fastest?
- Which service is located nearest to the user ?

Thus, ShipIt as a service tries to find the most suitable shipping service for the Consumer providing him the best value out of the multiple shipping services available to him/her.

This python project is a prototype to such an idea - "ShipIt".

The Program:

Required Dependencies:

- 1. os and sys:
 - Used for finding the current location of the ShipIt program.
- 2. random:

Used to generate random user id and registration id. (Generated Id never repeated.)

- 3. re:
 - Used for regular expression operation to check if email is of valid form or not.
- 4. json:

Used to parse and store data in json format used in the project.

5. datetime:

Used to find date and time during the registration in the program.

6. haversine :

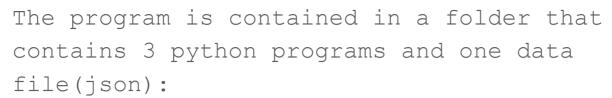
Used to find distance between two geo locations (latitude and longitude)

7. curses:

Used to have a better User Interface in the first screen.

8. subprocess:

Used to call a python program from the main program.



• main.py:

Python file to Start Project

ShipIt_User_col.py:

Python file for user side of program.

• ShipIt_Admin_col.py:

Python file for admin side of project.

shipdata.json:

Json file for storing data locally.

Front-end:

The front-end is developed with python with Curses-text-based UI in main.py and normal terminal based UI in ShipIt_User.py and ShipIt Admin.py.

Database:

Firebase Realtime database is used to store the data online, and a json file is used to store data locally.

json module is used to parse this data and the data retrieval from the internet is done via the request module by interacting with the firebase database using REST api.

The Code

main.py :

```
import curses
import os, subprocess, sys
menu = [ 'Admin', 'Customer', 'Exit']
currentpath = os.path.dirname(sys.argv[0])
def drawborder(screen):
    y,x = screen.getmaxyx()
    screen.addstr(0,0,""")
    screen.addstr(0,x-1,""")
    screen.addstr(y-2,0,""")
    screen.addstr(y-2,x-1,"
    for i in range(1,x-2):
        screen.addstr(0,i,""")
        screen.addstr(y-2,i," ")
    for i in range(1,y-2):
       screen.addstr(i,0,""")
        screen.addstr(i,x-2,""")
    screen.refresh()
def print menu(stdscr, selected row idx):
    h, w = stdscr.getmaxyx()
    W = W//2
    stdscr.clear()
    for i in range(0,len(1)):
        x = w + w//2 - len(l[i])//2
        y = h//2 - len(1)//2 + i
        stdscr.addstr(y, x, l[i])
    drawborder(stdscr)
    for idx, row in enumerate(menu):
        x = w//2 - len(row)//2
        y = h//2 - len(menu)//2 + idx
        if idx == selected row idx:
            stdscr.attron(curses.color pair(1))
            stdscr.addstr(y, x, row)
            stdscr.attroff(curses.color pair(1))
            stdscr.addstr(y, x, row)
    stdscr.refresh()
```

```
def print center(stdscr, text):
    stdscr.clear()
    h, w = stdscr.getmaxyx()
    x = w//2 - len(text)//2
    y = h//2
    stdscr.addstr(y, x, text)
    stdscr.refresh()
def start(stdscr) :
    global current row
    stdscr.bkgd(' ', curses.color pair(2) | curses.A BOLD)
    curses.curs set(0)
    curses.init pair(1, curses.COLOR BLACK, curses.COLOR WHITE)
    curses.init pair(2, curses.COLOR WHITE, curses.COLOR CYAN)
    stdscr = curses.initscr()
    curses.resize_term(20,130)
    current row = 0
    stdscr.refresh()
    print menu(stdscr, current row)
    stdscr.refresh()
    while 1:
        key = stdscr.getch()
        if key == curses.KEY_UP and current_row > 0:
            current row -= 1
        elif key == curses.KEY DOWN and current row < len(menu)-1:</pre>
            current row += 1
        elif key == curses.KEY ENTER or key in [10, 13]:
            if current row == len(menu)-1:
              break
            else:
                break
        print menu(stdscr, current row)
curses.wrapper(start)
if current row == 1:
    subprocess.call(["python.exe", currentpath + "/ShipIt_User_col.py"])
elif current row == 0:
    subprocess.call(["python.exe", currentpath + "/ShipIt Admin col.py"])
```

```
ShipIt User col.py:
#Packaaes
import json, re, os, haversine, random, requests, sys, subprocess
from datetime import datetime
from termcolor import colored, cprint
os.svstem('cls')
#Pre-defined data
currentpath = os.path.dirname(sys.argv[0])
filepath = currentpath + "/shipdata.json"
datalink = "https://shipit-pantomaths.firebaseio.com/.json"
regex = "^[a-z0-9]+[\.]?[a-z0-9]+[@]\w+[.]\w{2,3}$"
datalink2 = "https://shipit-log-default-rtdb.firebaseio.com/.json"
#About Us Function
def aboutus():
    cprint("
    cprint("-="*64,"blue","on white")
    cprint(" "*60 + "ABOUT US" + " "*60,"blue", "on white")
    cprint("-="*64,"blue","on white")
    cprint("")
    cprint("Thanks For using our Service, here is our About Us section:","blue")
    cprint("")
    cprint("We are ShipIt!, a service that aims to help you choose the best
shipping service for you.", "blue")
   cprint("The Developer:","blue")
    cprint("P.Biswanath Patra", "blue")
    cprint("XII - A, Kendriya Vidyalaya, BAM", "blue")
    cprint("For social data:","blue")
    cprint("@roshanbiswanath", "blue")
    cprint("roshanbiswanathpatra@gmail.com", "blue")
#Online Data Functions Start
def datadownload():
   global data
   r = requests.get(datalink).text
   data = json.loads(r)
def dataupload():
   global data
   requests.patch(datalink,data = json.dumps(data))
#Online Data Functions End
#Offline Data Functions Start
def getdata():
   global data
    f = open(filepath, "r")
   data = json.load(f)
   f.close()
def updatedata():
    global data
    f = open(filepath, "w")
   f.write(json.dumps(data))
   f.close()
₩ ffline Data Functions End
```

```
#Mail Structure Check Function
def checkvalid(email):
    if re.search(regex,email):
        return True
    else:
        return False
#Mail in Database Check
def checkmailexist(mail):
    mailexist = False
    for i in data["users"]:
        if mail == i["email"]:
            mailexist = True
            break
        else:
            mailexist = False
    return mailexist
#Authentication Function
def checklogin(mail,passw):
    for i in data["users"]:
        if i["email"] == mail and i["pwd"] == passw :
            check = True
            break
        else:
            check = False
    return check
#Anonymous Startup Function
def startupano():
    while True:
      datadownload()
        updatedata()
        getdata()
        cprint("-"*128,"blue","on_white")
        cprint("|"+" "*54 +"Welcome to ShipIt!" + " "*54+"|","blue","on white")
        cprint("-"*128,"blue","on_white")
        cprint("")
        cprint("Hello User", "blue")
        cprint("Press 1 to check existing tracks", "magenta")
        cprint("Press 2 to find suitable delivery service", "magenta")
        cprint("Press 3 to go to main menu", "yellow")
        while True:
            try:
                ch26 = int(input())
                cprint("Invalid Input Provided", "yellow")
                cprint("Pleae input values between 1,2 and 3","yellow")
                continue
            if ch26 not in [1,2,3]:
                cprint("Invalid Input Provided", "yellow")
                cprint("Pleae input values between 1,2 and 3","yellow")
                continue
            break
        if ch26 == 3:
            cprint("Re-directing to main-menu","cyan")
            break
```

```
elif ch26 == 1:
            while True:
                cprint("Existing Tracks", "blue")
                datadownload()
                updatedata()
                getdata()
                cprint("Enter Tracking Id to check Consignment", "magenta")
                while True:
                    try:
                        tid = int(input())
                    except:
                        cprint("Invalid Input provided", "yellow")
                        cprint("Please input the 8 digit tracking id provided
while registering.","yellow")
                        continue
                    if len(str(tid)) != 8 :
                        cprint("Invalid Input provided", "yellow")
                        cprint("Please input the 8 digit tracking id provided
while registering.","yellow")
                        continue
                if str(tid) not in data["tracks"]:
                    cprint("Given Tracking ID not found in Database.", "yellow")
                    cprint("Press 1 to re-enter Tracking ID", "magenta")
                    cprint("Else Going to Previous Screen", "cyan")
                    ch27 = input()
                    if ch27 == "1":
                        continue
                    else:
                        cprint("Redirecting to previous screen","cyan")
                        break
                else:
                    cprint("Details of Consignment", "magenta")
                    pkg = data["tracks"][str(tid)]
                    cprint("Details of shipment with tracking ID
"+str(tid), "magenta")
                    cprint("Package Weight : "+ str(pkg["pkgwt"]))
                    cprint("Dilevery Start Location :
"+str(pkg["startlocation"]), "magenta")
                    cprint("Dilevery End Location : "+str(pkg["endlocation"]))
                    cprint("Current Location of Package :
"+str(pkg["location"]), "magenta")
                    cprint("Price of package : "+str(pkg["price"]))
                    cprint("Courier Used : "+str(pkg["Courier Used"]),"magenta")
                    cprint("Registration Time : "+str(pkg["issuetime"]))
                    if pkg["location"] == pkg["endlocation"] :
                        cprint("Package Delivered to location.", "green")
                    elif pkg["location"] == pkg["startlocation"]:
                        cprint("Package hasn't started delivery.", "green")
                    cprint("Press 1 to check another tracking id", "magenta")
                    cprint("Else going to previous screen","cyan")
                    ch28 = input()
                    if ch28 == "1":
                        continue
                    else:
                        cprint("Redirecting to previous screen","cyan")
                        break
```

```
else:
            while True:
                cprint("Find the most suitable shipping service for you", "green")
                cprint("Provide the details of the package", "blue")
                while True:
                    try:
                        mass2 = float(input("Enter the mass of the package in
kgs"))
                    except:
                        cprint("invalid Input provided", "yellow")
                        cprint("Re-enter mass","yellow")
                        continue
                    if mass2 <= 0:
                        cprint("invalid Input provided", "yellow")
                        cprint("Re-enter mass", "yellow")
                        continue
                    break
                cprint("")
                cprint("Press Y for fast delivery", "magenta")
                cprint("Press any other key for Normal Delivery", "cyan")
                shipchoice = input()
                if shipchoice == 'y' or shipchoice == "Y":
                    x = "fast"
                    cprint("Fast delivery choosen", "cyan")
                else:
                    x = "normal"
                    cprint("Normal Delivery Choosen", "cyan")
                while True:
                    datadownload()
                    updatedata()
                    getdata()
                    locatdict = data["Locations"]
                    cprint("Choose start location", "blue")
                    for i in range(1,len(locatdict["locid"])+1):
                        cprint("Press "+str(i)+" for
"+str(locatdict["Name"][locatdict["locid"][i-1]]), "magenta")
                    while True:
                        try:
                            ch29 = int(input())
                        except:
                            cprint("Invalid Input given, please
re-enter","yellow")
                            continue
                        if ch29 not in range(1,len(locatdict["locid"])+1):
                            cprint("Invalid Input Given, please
re-enter","yellow")
                            continue
                        break
                    startid = locatdict["locid"][ch29 -1]
                    startlocation = locatdict["Name"][startid]
                    cprint("Start Location Choosen : "+startlocation,"magenta")
                    cprint("Choose Delivery Location", "blue")
                    for i in range(1,len(locatdict["locid"])+1):
                        if locatdict["locid"][i-1] == startid:
                            continue
                        cprint("Press "+str(i)+" for
"+str(locatdict["Name"][locatdict["locid"][i-1]]),"magenta")
```

```
while True:
                        try:
                            ch30 = int(input())
                        except:
                            cprint("Invalid Input given, please
re-enter","yellow")
                            continue
                        if ch30 not in range(1,len(locatdict["locid"])+1) or
locatdict["locid"][ch30-1] == startid:
                            cprint("Invalid Input Given, please
re-enter","yellow")
                            continue
                        break
                    endid = locatdict["locid"][ch30-1]
                    endlocation = locatdict["Name"][endid]
                    cprint("Delivery Location Choosen :
"+str(endlocation)+str(endid), "magenta")
                    cprint("To Confirm Choice Press 1", "magenta")
                    cprint("To choose location again Press 2","blue")
                    while True:
                        try:
                            ch31 = int(input())
                        except:
                            cprint("You have entered Invalid Data", "yellow")
                            cprint("Choose any option between 1 and 2", "yellow")
                            continue
                        if ch31 not in [1,2]:
                            cprint("You have entered Invalid Data", "yellow")
                            cprint("Choose any option between 1 and 2 ","yellow")
                            continue
                        break
                    if ch31 == 2:
                        cprint("Re-choosing Location","cyan")
                        continue
                    else:
                cprint("Delivery from "+startlocation+" to
"+endlocation, "magenta")
                datadownload()
                updatedata()
                getdata()
                locdata = data["Locations"]["locdata"]
                startlocdata = locdata[startid]
                endlocdata = locdata[endid]
                kms = haversine.haversine(startlocdata,endlocdata)
                if mass2 <= 1 and mass2>0:
                    pid = "01"
                elif mass2 <= 5 and mass2>1:
                    pid = "15"
                elif mass2 <= 10 and mass2>5:
                    pid = "510"
                elif mass2>10:
                    pid = "100"
```

```
if mass2 <= 10:
                    price couriera =
data["courier_prices"][x][pid]["startpricec1"] +
(data["courier_prices"][x][pid]["pricekmc1"])*(kms/5)
                    price courierb =
data["courier_prices"][x][pid]["startpricec2"] +
(data["courier_prices"][x][pid]["pricekmc2"])*(kms/5)
                    price_courierc =
data["courier_prices"][x][pid]["startpricec3"] +
(data["courier_prices"][x][pid]["pricekmc3"])*(kms/5)
                    price_courierd =
data["courier_prices"][x][pid]["startpricec4"] +
(data["courier_prices"][x][pid]["pricekmc4"])*(kms/5)
                    price_couriera =
data["courier_prices"][x][pid]["startpricec1"] +
(data["courier_prices"][x][pid]["pricekmc1"])*(kms/5)*(mass2 - 9)
                    price_courierb =
data["courier_prices"][x][pid]["startpricec2"] +
(data["courier_prices"][x][pid]["pricekmc2"])*(kms/5)*(mass2 - 9)
                    price_courierc =
data["courier_prices"][x][pid]["startpricec3"] +
(data["courier_prices"][x][pid]["pricekmc3"])*(kms/5)*(mass2 - 9)
                    price_courierd =
data["courier_prices"][x][pid]["startpricec4"] +
(data["courier_prices"][x][pid]["pricekmc4"])*(kms/5)*(mass2 - 9)
                cprint("")
                cprint("The prices provided by Courier Services for", "blue")
                cprint(" Package of weight :"+ str(mass2), "magenta")
                cprint("From "+startlocation+" To "+endlocation, "magenta")
                cprint("Covering distance "+str(kms), "magenta")
                cprint("Courier Services", "blue")
                cprint("Courier Service A :"+str(price_couriera),"magenta")
                cprint("Courier Service B :"+str(price_courierb),"magenta")
                cprint("Courier Service C :"+str(price_courierc),"magenta")
                cprint("Courier Service D :"+str(price_courierd),"magenta")
                cprint("Now you can choose the most suitable shipping service for
you.", "green")
                cprint("")
                print("For courier service A press 1","For courier service B press
2", sep ='\n')
                print("For courier service C press 3","For courier service D press
4", sep ='\n')
                k = input()
```

```
while k == "" or (k != "1" and k != "A" and k != "a" and k !=
and k = "B" and k = "b" and k = "3" and k = "C" and k = "c" and k = "4" and
k != "D" and k != "d"):
                   cprint("Please enter a valid choice between a,b,c,d or
1,2,3,4","yellow")
                   k = input()
               cprint("")
               if k == "1" or k == "A" or k == "a":
                   cid = "c1"
                   price2 = price couriera
               elif k == "2" or k == "b" or k == "B":
                   cid = "c2"
                   price2 = price courierb
               elif k == "3" or k == "c" or k == "C":
                   cid = "c3"
                   price2 = price_courierc
               elif k == "4" or k == "d" or k == "D":
                   cid = "c4"
                   price2 = price_courierd
               cprint("Link to Courier"+str(data["couriers"][cid]), "magenta")
               urltext = data["courierurl"][cid]
               cprint(urltext)
               cprint("Press 1 to save this track", "green")
               cprint("Else, going to Previous Screen","cyan")
               ch32 = input()
               if ch32 == "1":
                   while pid2 in data["tracks"]:
                       pid2 = random.randint(10000000,99999999)
                   cprint("courier Id : "+str(pid2), "magenta")
                   cprint("Note down this Courier Id for future
reference.", "yellow")
                   datadownload()
                   updatedata()
                   getdata()
                   trackdict2 = {}
                   trackdict2["issuetime"] = str(datetime.now())
                   trackdict2["pkgwt"] = str(mass2)
                   trackdict2["startlocation"] = str(startid)
                   trackdict2["endlocation"] = str(endid)
                   trackdict2["location"] = str(startid)
                   trackdict2["Courier Used"] = str(cid)
                   trackdict2["price"] = str(price2)
                   data["tracks"][str(pid2)] = trackdict2
                   updatedata()
                   dataupload()
                   datadownload()
                   updatedata()
                   getdata()
                   cprint("To check suitable prices for another package press
1", "green")
                   cprint("else going to User Startup Screen","cyan")
                   ch33 = input()
                   if ch33 == "1":
                       continue
                   else:
                       break
               else:
                   break
```

```
#Authenticated Startup Function
def startup(mail):
   while True:
        datadownload()
        updatedata()
        getdata()
        cprint("+"+"-"*126+"+","blue","on_white")
        cprint("|"+" "*54 +"Welcome to ShipIt!" + " "*54+"|","blue","on white")
        cprint("+"+"-"*126+"+","blue","on white")
        for i in data["users"]:
            if i["email"] == mail:
                userdict = i
                break
        cprint("Hello " +userdict["name"],"blue")
        cprint("Email Id : "+userdict["email"],"blue")
        cprint("To Check existing tracks press 1", "magenta")
        cprint("To add new delivery press 2", "magenta")
        cprint("To edit user details such as Name, E-mail id, password press
3", "magenta")
        cprint("To log-out press 4", "red")
        while True:
            try:
                ch11 = int(input())
            except:
                cprint("You have entered Invalid Data", "yellow")
                cprint("Choose any option between 1,2,3 and 4","yellow")
                continue
            if ch11 not in [1,2,3,4]:
                cprint("You have entered Invalid Data", "yellow")
                cprint("Choose any option between 1,2 and 3","yellow")
                continue
            break
        if ch11 == 4:
            break
        elif ch11 == 1:
           while True:
                cprint("Existing Tracks","blue")
                tracks = userdict["tracks"]
                if len(tracks) == 1:
                    cprint("There are no existing tracks, Going to user
screen","yellow")
                    break
                else:
                    cprint("Choose tracking id to check details :","blue")
                    for i in range(1,len(tracks)):
                        cprint(
                        "Press "+str(i)+" for "+str(tracks[i])+" ( from "
+data["Locations"]["Name"][data["tracks"][tracks[i]]["startlocation"]]+" to "+
data["Locations"]["Name"][data["tracks"][tracks[i]]["endlocation"]]+' ) ',
"magenta")
```

```
while True:
                        trv:
                            ch12 = int(input())
                        except:
                            cprint("Invalid Input Provided please
re-enter.","yellow")
                            cprint("Enter value between 1
to"+str(len(tracks)), "yellow")
                            continue
                        if ch12 not in range(1,len(tracks)+1):
                            cprint("Invalid Input Provided please re-enter.")
                            cprint("Enter value between 1
to"+str(len(tracks)), "yellow")
                            continue
                        break
                    trackid = ch12
                    print("Details of shipment with tracking ID", tracks[trackid])
                    print("Package Weight
:",data["tracks"][tracks[trackid]]["pkgwt"])
                    print("Dilevery Start Location
:",data["Locations"]["Name"][data["tracks"][tracks[trackid]]["startlocation"]])
                    print("Dilevery End Location
:",data["Locations"]["Name"][data["tracks"][tracks[trackid]]["endlocation"]])
                    print("Current Location of Package
:",data["Locations"]["Name"][data["tracks"][tracks[trackid]]["location"]])
                    print("Price of package :
",data["tracks"][tracks[trackid]]["price"])
                    print("Courier Used :
",data["couriers"][data["tracks"][tracks[trackid]]["Courier Used"]])
                    print("Registration Time :
",data["tracks"][tracks[trackid]]["issuetime"])
                    if data["tracks"][tracks[trackid]]["location"] ==
data["tracks"][tracks[trackid]]["endlocation"] :
                        cprint("Package Delivered to location.", "green")
                    elif data["tracks"][tracks[trackid]]["location"] ==
data["tracks"][tracks[trackid]]["startlocation"]:
                        cprint("Package hasn't started delivery.", "green")
                    cprint("To check another track press 1", "magenta")
                    cprint("Else, Going Back to User Screen","cyan")
                    ch13 = input()
                    if ch13 == "1":
                        continue
                    else:
                        break
        elif ch11 == 2:
            while True:
                cprint("Let us find the most suitable shipping service for
you!","magenta")
                cprint("Provide the details of the package", "blue")
                while True:
                    try:
                        mass = float(input("Enter the mass of the package to be
delivered in kgs."))
```

```
except:
                        cprint("You have entered an invalid data. Please
re-enter.","yellow")
                        cprint("")
                        continue
                    if mass <= 0:
                        cprint("You have entered an invalid data. Please
re-enter.","yellow")
                        cprint("")
                        continue
                    break
                cprint("")
                cprint("Press Y for fast delivery", "magenta")
                cprint("Else Press any other key", "magenta")
                ship choice = input()
                if ship_choice == 'y' or ship_choice == "Y":
                    x = "fast"
                    cprint("Fast Delivery choosen", "green")
                else:
                    x = "normal"
                    cprint('Normal Delivery chosen', "green")
                while True:
                    datadownload()
                    updatedata()
                    getdata()
                    locatdict = data["Locations"]
                    cprint("Choose start location","blue")
                    for i in range(1,len(locatdict["locid"])+1):
print("Press",i,"for",locatdict["Name"][locatdict["locid"][i-1]])
                    while True:
                            ch14 = int(input())
                        except:
                            cprint("Invalid Input given, please
re-enter", "yellow")
                            continue
                        if ch14 not in range(1,len(locatdict["locid"])+1):
                            cprint("Invalid Input Given, please
re-enter","yellow")
                            continue
                        break
                    startid = locatdict["locid"][ch14-1]
                    startlocation = locatdict["Name"][startid]
                    cprint("Start Location Choosen : "+startlocation+"
"+str(startid), "green")
                    cprint("Choose Delivery Location", "blue")
                    for i in range(1,len(locatdict["locid"])+1):
                        if locatdict["locid"][i-1] == startid:
                            continue
print("Press",i,"for",locatdict["Name"][locatdict["locid"][i-1]])
```

```
while True:
                        trv:
                            ch15 = int(input())
                        except:
                            cprint("Invalid Input given, please
re-enter","yellow")
                            continue
                        if ch15 not in range(1,len(locatdict["locid"])+1) or
locatdict["locid"][ch15-1] == startid:
                            cprint("Invalid Input Given, please
re-enter","yellow")
                            continue
                        break
                    endid = locatdict["locid"][ch15-1]
                    endlocation = locatdict["Name"][endid]
                    cprint("Delivery Location Choosen : "+endlocation+"
"+str(endid), "green")
                    cprint("To Confirm Choice Press 1", "green")
                    cprint("To choose location again Press 2", "magenta")
                    while True:
                        try:
                            ch16 = int(input())
                        except:
                            cprint("You have entered Invalid Data", "yellow")
                            cprint("Choose any option between 1 and 2", "yellow")
                            continue
                        if ch16 not in [1,2]:
                            cprint("You have entered Invalid Data", "yellow")
                            cprint("Choose any option between 1,2 and 3", "yellow")
                            continue
                        break
                    if ch16 == 2:
                        cprint("Re-choosing Location", "cyan")
                        continue
                    else:
                        break
                cprint("Delivery from "+startlocation+" to "+endlocation, "green")
                datadownload()
                updatedata()
                getdata()
                locdata = data["Locations"]["locdata"]
                startlocdata = locdata[startid]
                endlocdata = locdata[endid]
                kms = haversine.haversine(startlocdata,endlocdata)
                if mass <= 1 and mass>0:
                    pid = "01"
                elif mass <= 5 and mass>1:
                    pid = "15"
                elif mass <= 10 and mass>5:
                    pid = "510"
                elif mass>10:
                    pid = "100"
```

```
if mass <= 10:
                    price couriera =
data["courier_prices"][x][pid]["startpricec1"] +
(data["courier prices"][x][pid]["pricekmc1"])*(kms/5)
                    price_courierb =
data["courier prices"][x][pid]["startpricec2"] +
(data["courier_prices"][x][pid]["pricekmc2"])*(kms/5)
                    price courierc =
data["courier prices"][x][pid]["startpricec3"] +
(data["courier_prices"][x][pid]["pricekmc3"])*(kms/5)
                    price courierd =
data["courier_prices"][x][pid]["startpricec4"] +
(data["courier_prices"][x][pid]["pricekmc4"])*(kms/5)
                else:
                    price couriera =
data["courier_prices"][x][pid]["startpricec1"] +
(data["courier_prices"][x][pid]["pricekmc1"])*(kms/5)*(mass - 9)
                    price_courierb =
data["courier_prices"][x][pid]["startpricec2"] +
(data["courier_prices"][x][pid]["pricekmc2"])*(kms/5)*(mass - 9)
                    price_courierc =
data["courier_prices"][x][pid]["startpricec3"] +
(data["courier_prices"][x][pid]["pricekmc3"])*(kms/5)*(mass - 9)
                    price courierd =
data["courier_prices"][x][pid]["startpricec4"] +
(data["courier prices"][x][pid]["pricekmc4"])*(kms/5)*(mass - 9)
                cprint("")
                cprint("The prices provided by Courier Services for", "blue")
                cprint(" Package of weight :"+str( mass), "magenta")
                cprint("From " + startlocation+" To "+endlocation, "magenta")
                cprint("Covering distance"+str(kms), "magenta")
                cprint("Courier Services", "blue")
                print("Courier Service A :",price_couriera)
                print("Courier Service B :",price_courierb)
                print("Courier Service C :",price_courierc)
                print("Courier Service D :",price_courierd)
                cprint("Now you can choose the most suitable shipping service for
you.", "green")
                cprint("")
                print("For courier service A press 1", "For courier service B press
2", sep ='\n')
                print("For courier service C press 3","For courier service D press
4", sep ='\n')
                k = input()
                while k == "" or (k != "1" and k != "A" and k != "a" and k != "2"
and k = B and k = b and k = 3 and k = C and k = C and k = C and k = C
k != "D" and k != "d"):
                    cprint("Please enter a valid choice between a,b,c,d or
1,2,3,4","yellow")
                    k = input()
                cprint("")
                if k == "1" or k == "A" or k == "a":
                    cid = "c1"
                    price = price_couriera
                elif k == "2" or k == "b" or k == "B":
                    cid = "c2"
```

```
price = price courierb
                elif k == "3" or k == "c" or k == "C":
                    cid = "c3"
                    price = price_courierc
                elif k == "4" or k == "d" or k == "D":
                    cid = "c4"
                    price = price_courierd
                cprint("Link to Courier"+data["couriers"][cid], "green")
                urltext = data["courierurl"][cid]
                cprint(urltext)
                cprint("To save this track to your account press 1", "green")
                cprint("else going to User Screen","cyan")
                ch17 = input()
                if ch17 == "1":
                    pid = random.randint(10000000,99999999)
                    while pid in data["tracks"]:
                        pid = random.randint(10000000,999999999)
                    cprint("courier Id : "+str(pid))
                    datadownload()
                    updatedata()
                    getdata()
                    trackdict = {}
                    trackdict["issuetime"] = str(datetime.now())
                    trackdict["pkgwt"] = str(mass)
                    trackdict["startlocation"] = str(startid)
                    trackdict["endlocation"] = str(endid)
                    trackdict["location"] = str(startid)
                    trackdict["Courier Used"] = str(cid)
                    trackdict["price"] = str(price)
                    for i in data["users"]:
                        if i["email"] == userdict["email"]:
                            i["tracks"].append(str(pid))
                    data["tracks"][str(pid)] = trackdict
                    updatedata()
                    dataupload()
                    datadownload()
                    updatedata()
                    getdata()
                    cprint("To check suitable prices for another package press
1", "green")
                    cprint("else going to User Startup Screen","cyan")
                    ch18 = input()
                    if ch18 == "1":
                        continue
                    else:
                        break
                else:
                    cprint("Re-directing to User Screen","cyan")
                    break
        else:
            while True:
                datadownload()
                updatedata()
                getdata()
```

```
for i in data["users"]:
                    if i["email"] == mail:
                         userdict = i
                cprint("Editing User Details", "yellow")
                cprint("Press 1 to edit UserName", "magenta")
                cprint("Press 2 to edit Mail Id", "magenta")
                cprint("Press 3 to edit Password", "magenta")
                cprint("Press 4 to go to User Screen", "yellow")
                while True:
                    try:
                         ch19 = int(input())
                    except:
                         cprint("Invalid Input Provided", "yellow")
                         cprint("Enter a value between 1 to 4", "yellow")
                         continue
                    if ch19 not in [1,2,3,4]:
                         cprint("Invalid Input Provided", "yellow")
                         cprint("Enter a value between 1 to 4", "yellow")
                         continue
                    break
                if ch19 == 4:
                    cprint("Redirecting to User Screen","cyan")
                elif ch19 == 1:
                    while True:
                         datadownload()
                        updatedata()
                         getdata()
                         for i in data["users"]:
                             if i["email"] == mail:
                                 userdict = i
                                 break
                         cprint("Editing Username", "blue")
                         cprint("Current Username : "+ userdict["name"], "magenta")
                         newname = input("Enter new Username : ")
                         cprint("You entered "+newname+" as your new
Username.","magenta")
                         cprint("To confirm Press 1", "yellow")
                         cprint("To re-enter press 2","magenta")
                         cprint("To go back press 3", "yellow")
                         while True:
                             try:
                                 ch20 = int(input())
                             except:
                                 cprint("Invalid Input provided", "yellow")
                                 cprint("Please enter any value between 1,2 and
3", "yellow")
                                 continue
                             if ch20 not in [1,2,3]:
                                 cprint("Invalid Input provided", "yellow")
                                 cprint("Please enter any value between 1,2 and
3", "yellow")
                                 continue
                             break
                         if ch20 == 3:
                             break
```

```
elif ch20 == 2:
                             continue
                        else:
                            userdict["name"] = newname
                            for i in range (0,len(data["users"])):
                                 if data["users"][i]["uid"] == userdict["uid"]:
                                     data["users"][i] = userdict
                                     break
                            updatedata()
                            dataupload()
                            datadownload()
                            getdata()
                            cprint("Username changed to "+newname, "green")
                            cprint("To change username again press 1", "magenta")
                            cprint("Else going back","cyan")
                            ch21 = input()
                            if ch21 == "1":
                                 continue
                            else:
                                 cprint("Going to Edit User Section...", "cyan")
                elif ch19 == 2:
                    while True:
                        datadownload()
                        updatedata()
                        getdata()
                        for i in data["users"]:
                            if i["email"] == mail:
                                 userdict = i
                                 break
                        cprint("Editing Email Address", "blue")
                        cprint("Current email : "+ userdict["email"], "magenta")
                        newmail = input("Enter new email address : ")
                        cprint("You entered "+newmail+" as your new email
address.", "magenta")
                        cprint("To confirm Press 1", "yellow")
                        cprint("To re-enter press 2", "magenta")
                        cprint("To go back press 3", "yellow")
                        while True:
                            try:
                                 ch22 = int(input())
                            except:
                                 cprint("Invalid Input provided", "yellow")
                                 cprint("Please enter any value between 1,2 and
3", "yellow")
                                 continue
                            if ch22 not in [1,2,3]:
                                 cprint("Invalid Input provided", "yellow")
                                 cprint("Please enter any value between 1,2 and
3", "yellow")
                                 continue
                            break
                        if ch22 == 3:
                            break
                        elif ch22 == 2:
                            continue
```

```
userdict["email"] = newmail
                            for i in range (0,len(data["users"])):
                                 if data["users"][i]["uid"] == userdict["uid"]:
                                     data["users"][i] = userdict
                                     break
                            updatedata()
                            dataupload()
                            datadownload()
                            getdata()
                            cprint("Email-address changed to "+newmail, "green")
                            cprint("To change email again press 1", "magenta")
                            cprint("Else going back","cyan")
                            ch23 = input()
                            if ch23 == "1":
                                continue
                            else:
                                cprint("Going to Edit User Section...", "cyan")
                                break
                else:
                    while True:
                        datadownload()
                        updatedata()
                        getdata()
                        for i in data["users"]:
                            if i["email"] == mail:
                                userdict = i
                                break
                        cprint("Editing Password", "blue")
                        cprint("Current Password : "+ userdict["pwd"],"magenta")
                        newpwd = input("Enter new password : ")
                        cprint("You entered "+ newpwd+" as your new
password.", "magenta")
                        cprint("To confirm Press 1", "yellow")
                        cprint("To re-enter press 2", "magenta")
                        cprint("To go back press 3", "yellow")
                        while True:
                            try:
                                ch24 = int(input())
                            except:
                                cprint("Invalid Input provided", "yellow")
                                 cprint("Please enter any value between 1,2 and
3", "yellow")
                                continue
                            if ch24 not in [1,2,3]:
                                cprint("Invalid Input provided", "yellow")
                                cprint("Please enter any value between 1,2 and
3", "yellow")
                                continue
                            break
                        if ch24 == 3:
                            break
                        elif ch24 == 2:
                            continue
```

else:

```
userdict["pwd"] = newpwd
                            for i in range (0,len(data["users"])):
                                if data["users"][i]["uid"] == userdict["uid"]:
                                    data["users"][i] = userdict
                                    break
                            updatedata()
                            dataupload()
                            datadownload()
                            getdata()
                            cprint("Password changed to "+newpwd, "green")
                            cprint("To change password again press 1", "magenta")
                            cprint("Else going back","cyan")
                            ch25 = input()
                            if ch25 == "1":
                                continue
                            else:
                                cprint("Going to Edit User Section...", "cyan")
#Login Function
def login():
   global mail
   getdata()
   while True:
        mail = None
        passwd = None
        maildone2, pwdone2, flag2 = False, False
        cprint("-"*128,"blue","on white")
        cprint("|"+" "*57 + "Login Screen" + " "*57+"|" ,"blue","on white")
        cprint("-"*128,"blue","on_white")
        while maildone2 == False and flag2 == False:
            cprint("Enter E-mail ID to login into ShipIt", "blue")
            mail = input("Mail ID : ")
            cprint("You entered "+mail+" as your email ID", "blue")
            cprint("To continue Press 1", "magenta")
            cprint("To re-enter press 2", "magenta")
            cprint("To go-back to main-screen press 3", "yellow")
            while True:
                try:
                    ch7 = int(input())
                except:
                    cprint("You have entered Invalid Data", "yellow")
                    cprint("Choose any option between 1,2 and 3","yellow")
                    continue
                if ch7 not in [1,2,3]:
                    cprint("You have entered Invalid Data", "yellow")
                    cprint("Choose any option between 1,2 and 3","yellow")
                break
            if ch7 == 3:
                flag2 = True
                break
            elif ch7 == 2:
                continue
```

else:

```
elif not checkmailexist(mail):
        cprint("Provided E-mail doesn't exist in database.", "yellow")
        cprint("To re-enter email press 1", "magenta")
        cprint("To register press 2", "magenta")
        while True:
            try:
                ch8 = int(input())
            except:
                cprint("You have entered Invalid Data", "yellow")
                cprint("Choose any option between 1 and 2", "yellow")
                continue
            if ch8 not in [1,2]:
                cprint("You have entered Invalid Data", "yellow")
                cprint("Choose any option between 1 and 2", "yellow")
                continue
            break
        if ch8 == 1:
            continue
        else:
            signup()
            flag2 = True
            break
    else:
        maildone2 = True
        break
while pwdone2 == False and flag2 == False and maildone2 == True:
    cprint("Enter Password to login into ShipIt", "blue")
    passwd = input("Password : ")
    cprint("You entered "+passwd+" as your Password", "blue")
    cprint("To continue Press 1", "magenta")
   cprint("To re-enter press 2", "magenta")
    cprint("To go-back to main-screen press 3", "yellow")
    while True:
        try:
            ch9 = int(input())
            cprint("You have entered Invalid Data", "yellow")
            cprint("Choose any option between 1,2 and 3","yellow")
            continue
        if ch9 not in [1,2,3]:
            cprint("You have entered Invalid Data", "yellow")
            cprint("Choose any option between 1,2 and 3", "yellow")
            continue
        break
    if ch9 == 3:
        flag2 = True
        break
    elif ch9 == 2:
        continue
    else:
        pwdone2 = True
        break
if flag2 == True:
    break
```

```
elif checklogin(mail,passwd) and flag2 == False and maildone2 == True and
pwdone2 == True:
            cprint("Login Successfull", "green")
            startup(mail)
            break
        else:
            cprint("Username and Password don't match", "red")
            cprint("To Re-enter mail-id and passwd press 1", "magenta")
            cprint("To go to main- menu press 2","yellow")
            while True:
                try:
                    ch10 = int(input())
                except:
                    cprint("You have entered Invalid Data", "yellow")
                    cprint("Choose any option between 1 and 2", "yellow")
                    continue
                if ch10 not in [1,2]:
                    cprint("You have entered Invalid Data", "yellow")
                    cprint("Choose any option between 1,2 and 3", "yellow")
                    continue
                break
            if ch10 == 1:
                continue
            else:
                break
#SignUp Function
def signup():
   flag1 = False
   maildone, pwdone, namedone = False, False, False
    cprint("-"*128,"blue","on_white")
    cprint(" "*57 + "Sign-Up Screen" + " "*57, "blue", "on white" )
   cprint("-"*128,"blue","on_white")
    while maildone == False and flag1 == False:
        cprint("Enter E-mail ID to register into ShipIt", "blue")
        regmail = input("Mail ID : ")
        cprint("You entered "+regmail+" as your email ID", "blue")
        cprint("To continue Press 1", "magenta")
        cprint("To re-enter press 2","magenta")
        cprint("To go-back to main-screen press 3","yellow")
        while True:
            try:
                ch3 = int(input())
            except:
                cprint("You have entered Invalid Data", "yellow")
                cprint("Choose any option between 1,2 and 3","yellow")
                continue
            if ch3 not in [1,2,3]:
                cprint("You have entered Invalid Data", "yellow")
                cprint("Choose any option between 1,2 and 3","yellow")
                continue
            break
        if ch3 == 3:
            flag1 = True
            break
        elif ch3 == 2:
            continue
```

```
elif checkmailexist(regmail):
        cprint("Entered e-mail address already exists", "green")
        cprint("To Login Press 1", "magenta")
        cprint("To re-enter mail id Press 2", "magenta")
        while True:
            try:
                ch4 = int(input())
            except:
                cprint("You have entered Invalid Data", "yellow")
                cprint("Choose any option between 1 and 2","yellow")
                continue
            if ch4 not in [1,2]:
                cprint("You have entered Invalid Data", "yellow")
                cprint("Choose any option between 1 and 2", "yellow")
                continue
            break
        if ch4 == 1:
            cprint("Going to Login Screen...","cyan")
            login()
            break
        else:
            continue
    elif checkvalid(regmail):
        maildone = True
        break
    else:
        cprint("Entered e-mail Id is invalid.", "red")
        continue
while pwdone == False and flag1 == False and maildone == True:
    cprint("Enter Password", "blue")
    pwd = input("Password : ")
    cprint("You entered "+pwd+" as your password", "blue")
    cprint("To continue Press 1", "magenta")
    cprint("To re-enter press 2", "magenta")
    cprint("To go-back to main-screen press 3","yellow")
    while True:
        try:
            ch5 = int(input())
        except:
            cprint("You have entered Invalid Data", "yellow")
            cprint("Choose any option between 1,2 and 3","yellow")
            continue
        if ch5 not in [1,2,3]:
            cprint("You have entered Invalid Data", "yellow")
            cprint("Choose any option between 1,2 and 3","yellow")
            continue
        break
    if ch5 == 3:
        flag1 = True
        break
    elif ch5 == 2:
        continue
    else:
        pwdone = True
        break
```

```
while namedone == False and flag1 == False and maildone == True and pwdone ==
True:
        cprint("Enter Username", "blue")
        name = input("Name : ")
        cprint("You entered "+name+" as your name","blue")
        cprint("To continue Press 1", "magenta")
        cprint("To re-enter press 2","magenta")
        cprint("To go-back to main-screen press 3","yellow")
        while True:
            try:
                ch6 = int(input())
            except:
                cprint("You have entered Invalid Data", "yellow")
                cprint("Choose any option between 1,2 and 3","yellow")
                continue
            if ch6 not in [1,2,3]:
                cprint("You have entered Invalid Data", "yellow")
                cprint("Choose any option between 1,2 and 3","yellow")
                continue
            break
        if ch6 == 3:
            flag1 = True
            break
        elif ch6 == 2:
            continue
        else:
            namedone = True
            break
    if namedone == True and pwdone == True and maildone == True and flag1 ==
False:
        cprint("Please Wait.....","cyan")
      datadownload()
        updatedata()
        getdata()
        1 = []
        for i in data["users"]:
            l.append(i["uid"])
        uid = random.randint(10000,99999)
        while uid in 1:
            uid = random.randint(10000,99999)
        data["users"].append( {"name":name, "email":regmail, "pwd":pwd,
"tracks":["00000000"], "uid":uid})
        updatedata()
        dataupload()
        getdata()
        cprint("Registration Complete with", "green")
        cprint("Name :"+name,"cyan")
        cprint("E-mail : "+ regmail,"cyan")
        cprint("Password : "+pwd,"cyan")
        cprint("Please Note the ID and passwd", "yellow")
```

```
#Main Loop
while True:
    logincomplete = False
    datadownload()
    try:
        getdata()
        datadownload()
    except:
        updatedata()
    updatedata()
    cprint(" "*128,"white","on_cyan")
    cprint(" "*128,"white","on_cyan")
    cprint(" "*128,"white","on_cyan")
    cprint(" "*75 ,"white","on_cyan",end="")
    cprint(" and a man a man
"*14, "white", "on_cyan", attrs=['bold'])
    cprint("Find the best shipping service for you."+" "*(36)
,"white","on_cyan",attrs=['bold'],end="")
    cprint( "
             "*14, "white", "on_cyan", attrs=['bold'])
    cprint("Provide the details of your package and we will help you," + " "*18
,"white","on_cyan",attrs=['bold'],end="")
    cprint( "4
"*14, "white", "on cyan", attrs=['bold'])
    cprint( "to find the most suitable shipping service."+ "
"*32, "white", "on cyan", attrs=['bold'], end="")
    cprint(" -----
"*14, "white", "on_cyan", attrs=['bold'])
    cprint(" "*75 +"
"*14,"white","on_cyan",attrs=['bold'])
cprint(" "*75 +" | | | | |
                                     "*14, "white", "on_cyan", attrs=['bold'])
    cprint(" "*128, "white", "on cyan")
    cprint(" "*128,"white","on_cyan")
cprint(" "*128,"white","on_cyan")
    cprint("-"*128,"grey","on_white")
    cprint(" "+' '*58 + "Disclaimer" +' '*58 + " | ", "grey", "on_white")
    cprint("-"*128,"grey","on_white")
    cprint("This is a Python Project"+" "*104,"grey","on white")
    cprint("the information provided by shipIt is for general usage purposes
only."+" "*58, "grey", "on_white")
    cprint("and is in no way related to any real organisation."+"
"*78, "grey", "on white")
    cprint("The information entered by you wouldn't be considered for Ads but will
be used for research and development of ShipIt!"+" "*10,"grey","on_white")
    cprint(" "*128,"grey","on_white")
    cprint("")
    cprint("To Login press 1", "magenta")
    cprint("To Surf Anonmously press 2","magenta")
    cprint("To SignUp press 3","magenta")
    cprint("To End Session press 4","red")
    cprint("If encountering issues, contact", "cyan", end="")
    cprint(" roshanbiswanathpatra@gmail.com","blue")
```

```
while True:
        trv:
            ch1 = int(input())
        except:
            cprint("You have entered invalid data", "yellow")
            continue
        if ch1 not in [1,2,3,4]:
            cprint("Enter suitable value from 1,2 or 3","yellow")
            continue
        break
    if ch1 == 1:
        login()
    elif ch1 == 2:
        startupano()
    elif ch1 == 123:
        break
    elif ch1 == 3:
        signup()
    elif ch1 == 4:
        break
    cprint("To end session enter N else continue", "red")
    ch2 = input()
    if ch2 in ["N", "n"]:
        cprint("Program Terminated", "red")
        break
    cprint("Please Wait....","cyan")
#About US
aboutus()
#Exit Loop
while True:
    cprint("To exit press q", "red")
    q = input()
    if q == "q" or q == "Q":
        break
subprocess.call(["python.exe", currentpath + "/main.py"])
```

```
ShipIt Admin col.py:
import json, re, os, haversine , random, requests, sys, subprocess
from passlib.hash import sha256 crypt
from datetime import datetime
from termcolor import colored.cprint
#Pre-defined data
currentpath = os.path.dirname(sys.argv[0])
filepath = currentpath + "/shipdata.json"
datalink = "https://shipit-pantomaths.firebaseio.com/.json"
datalink2 = "https://shipit-log-default-rtdb.firebaseio.com/.json"
os.system('cls')
def aboutus():
    cprint("")
    cprint("-="*64,"blue","on white")
    cprint(" "*60 + "ABOUT US" + " "*60,"blue","on_white")
    cprint("-="*64,"blue","on white")
    cprint("")
    cprint("Thanks For using our Service, here is our About Us section:","blue")
    cprint("")
    cprint("We are ShipIt!, a service that aims to help you choose the best
shipping service for you.","blue")
    cprint("The Developer:","blue")
    cprint("P.Biswanath Patra", "blue")
    cprint("XII - A, Kendriya Vidyalaya, BAM", "blue")
    cprint("For social data:","blue")
    cprint("@roshanbiswanath","blue")
    cprint("roshanbiswanathpatra@gmail.com","blue")
def checkmailexist(mail):
    mailexist = False
    for i in data["admins"]:
        if mail == i["email"]:
            mailexist = True
            break
        else:
            mailexist = False
    return mailexist
def checklogin(mail,passw):
    for i in data["admins"]:
        if i["email"] == mail and sha256_crypt.verify(passw, i["pwd"]) :
            check = True
            break
        else:
            check = False
    return check
#Online Data Functions Start
def datadownload():
    global data
    r = requests.get(datalink).text
    data = json.loads(r)
def dataupload():
    global data
    requests.patch(datalink,data = json.dumps(data))
#Online Data Functions End
```

```
#Offline Data Functions Start
def getdata():
   global data
   f = open(filepath, "r")
   data = json.load(f)
   f.close()
def updatedata():
   global data
   f = open(filepath, "w")
   f.write(json.dumps(data))
   f.close()
#Offline Data Functions End
def login():
   global mail
    getdata()
   while True:
        mail = None
        passwd = None
        maildone2,pwdone2,flag2 = False,False,False
        cprint("-"*128,"blue","on_white")
        cprint("|"+" "*57 + "Login Screen" + " "*57+"|" ,"blue","on_white")
        cprint("-"*128,"blue","on white")
        while maildone2 == False and flag2 == False:
            cprint("Enter E-mail ID to login into ShipIt", "blue")
            mail = input("Mail ID : ")
            cprint("You entered "+mail+" as your email ID", "blue")
            cprint("To continue Press 1", "magenta")
            cprint("To re-enter press 2", "magenta")
            cprint("To go-back to main-screen press 3", "yellow")
            while True:
                try:
                    ch2 = int(input())
                except:
                    cprint("You have entered Invalid Data", "yellow")
                    cprint("Choose any option between 1,2 and 3","yellow")
                    continue
                if ch2 not in [1,2,3]:
                    cprint("You have entered Invalid Data", "yellow")
                    cprint("Choose any option between 1,2 and 3", "yellow")
                break
            if ch2 == 3:
                flag2 = True
                break
            elif ch2 == 2:
                continue
            elif not checkmailexist(mail):
                cprint("Provided E-mail doesn't exist in database.", "yellow")
                continue
            else:
                maildone2 = True
                break
        while pwdone2 == False and flag2 == False and maildone2 == True:
            cprint("Enter Password to login into ShipIt","blue")
            passwd = input("Password : ")
            cprint("You entered "+passwd+" as your Password", "blue")
            cprint("To continue Press 1","magenta")
            cprint("To re-enter press 2", "magenta")
            cprint("To go-back to main-screen press 3","yellow")
```

```
while True:
                trv:
                    ch3 = int(input())
                except:
                    cprint("You have entered Invalid Data", "yellow")
                    cprint("Choose any option between 1,2 and 3","yellow")
                    continue
                if ch3 not in [1,2,3]:
                    cprint("You have entered Invalid Data", "yellow")
                    cprint("Choose any option between 1,2 and 3","yellow")
                    continue
                break
            if ch3 == 3:
                flag2 = True
                break
            elif ch3 == 2:
                continue
            else:
                pwdone2 = True
                break
        if flag2 == True:
            break
        elif checklogin(mail,passwd) and flag2 == False and maildone2 == True and
pwdone2 == True:
            cprint("Login Successfull", "green")
            startup(mail)
            break
        else:
            cprint("Username and Password don't match", "red")
            cprint("To Re-enter mail-id and passwd press 1", "magenta")
            cprint("To go to main- menu press 2", "yellow")
            while True:
                try:
                    ch4 = int(input())
                except:
                    cprint("You have entered Invalid Data", "yellow")
                    cprint("Choose any option between 1 and 2", "yellow")
                    continue
                if ch4 not in [1,2]:
                    cprint("You have entered Invalid Data", "yellow")
                    cprint("Choose any option between 1,2 and 3","yellow")
                    continue
                break
            if ch4 == 1:
                continue
            else:
                break
def startup(mail):
   while True:
        datadownload()
        dataupload()
        getdata()
        cprint("+"+"-"*126+"+","blue","on_white")
        cprint("|"+" "*54 +"Welcome to ShipIt!" + " "*54+"|","blue","on_white")
        cprint("+"+"-"*126+"+","blue","on white")
```

```
for i in data["admins"]:
            if i["email"] == mail:
                userdict = i
                break
        cprint("Hello " +userdict["name"],"blue")
        cprint("Email Id : "+userdict["email"],"blue")
        cprint("Courier Service : "+data["couriers"][userdict["courier"]],"blue")
       cprint("To change prices press 1","magenta")
        cprint("To Log-Out press 2","red")
        while True:
            try:
                ch5 = int(input())
            except:
                cprint("Invalid Input Given. Please Re-enter", "yellow")
                cprint("Enter a value between 1,2, or 3","yellow")
                continue
            if ch5 not in [1,2]:
                cprint("Invalid Input Given. Please Re-enter", "yellow")
                cprint("Enter a value between 1,2, or 3","yellow")
                continue
            break
        if ch5 == 2:
            break
        else:
            while True:
                for i in data["admins"]:
                  if i["email"] == mail:
                        userdict = i
                        break
                datadownload()
                dataupload()
                getdata()
                cprint("Editing Prices", "blue")
                cprint("Current Prices ","blue")
                cprint("+--- Fast -----
,"blue")
                                               Start Price
                                                                Price per km |",
                cprint("|
                            Weight
"blue")
"blue")
                for i in data["courier_prices"]["fast"]:
                    if i == "01":
                        k = "
                                0 - 1 kg
                    elif i == "15":
                        k = " 1 - 5 kg
                    elif i == "510":
                        k = " 5 - 10 kg
                    elif i == "100":
                        k = "
                                  10+ kg
                    d = data["courier_prices"]["fast"][i]
                    a = "pricekm"+userdict["courier"]
                    b = "startprice"+userdict["courier"]
                    x = ["₹"+str(d[b]),"₹"+str(d[a])]
                                       "+x[0]+" "*(16-len(x[0]))+" "+x[1]+"
                    cprint("|"+k+"|
"*(13-len(x[1]))+"|","magenta")
                cprint("+-
<mark>"blu</mark>e")
                cprint("")
```

```
cprint("+-- Normal -----+
"blue")
                          Weight | Start Price | Price per km
               cprint("
|","blue")
               cprint("+-----+",
"blue")
               for i in data["courier prices"]["normal"]:
                   if i == "01":
                      k = " 0 - 1 kg
                   elif i == "15":
                      k = " 1 - 5 kg
                   elif i == "510":
                      k = " 5 - 10 kg
                   elif i == "100":
                      k = " 10 + kg
                   d = data["courier prices"]["normal"][i]
                   a = "pricekm"+userdict["courier"]
                   b = "startprice"+userdict["courier"]
                  x = ["₹"+str(d[b]),"₹"+str(d[a])]
                                    "+x[0]+" "*(16-len(x[0]))+"| "+x[1]+"
                   cprint("|"+k+"|
"*(13-len(x[1]))+"|", "magenta")
               cprint("+-----
"blue")
               cprint("")
               cprint("To edit Fast Service prices press 1", "magenta")
               cprint("To edit Normal Service prices press 2", "magenta")
               cprint("To go back to main screen press 3","yellow")
               while True:
                   try:
                      ch6 = int(input())
                   except:
                      cprint("Invalid Input provided, please re-enter", "yellow")
                       cprint("Enter a value between 1,2 or 3","yellow")
                      continue
                   if ch6 not in [1,2,3]:
                       cprint("Invalid Input provided, please re-enter", "yellow")
                      cprint("Enter a value between 1,2 or 3","yellow")
                      continue
                   break
               if ch6 ==3 :
                   break
               elif ch6 == 2:
                   ser = "normal"
               else:
                   ser = "fast"
               cprint("")
               cprint("Choose the weight category to edit","blue")
               cprint("For 0-1 kg press 1","magenta")
               cprint("For 1-5 kg press 2","magenta")
               cprint("For 5-10 kg press 3","magenta")
               cprint("for 10+ kg press 4","magenta")
               cprint("To go back to main screen press 5","yellow")
               while True:
                  try:
                      ch7 = int(input())
                   except:
                      cprint("Invalid Input provided, please re-enter", "yellow")
                      cprint("Enter a value between 1 to 5", "yellow")
                       continue
```

30

```
cprint("Invalid Input provided, please re-enter", "yellow")
                        cprint("Enter a value between 1 to 5", "yellow")
                        continue
                    break
                if ch7 == 5 :
                    break
                elif ch7 == 1:
                    mas = ["01","0-1 kg"]
                elif ch7 == 2:
                    mas = ["15","1-5 kg"]
                elif ch7 == 3:
                    mas = ["510", "5-10 kg"]
                else :
                    mas = ["100","10+ kg"]
                cprint("")
                cprint("To edit Startprice press 1", "magenta")
                cprint("To edit per km price press 2", "magenta")
                cprint("To go back to main screen press 3","yellow")
                while True:
                    try:
                        ch8 = int(input())
                    except:
                        cprint("Invalid Input provided, please re-enter", "yellow")
                        cprint("Enter a value between 1,2 or 3","yellow")
                        continue
                    if ch8 not in [1,2,3]:
                        cprint("Invalid Input provided, please re-enter", "yellow")
                        cprint("Enter a value between 1,2 or 3","vellow")
                        continue
                    break
                if ch8 ==3 :
                    break
                elif ch8 == 2:
                    pri = ["pricekm", "Price per km"]
                else:
                    pri = ["startprice", "Start Price"]
                cprint("")
                cur = data["courier_prices"][ser][mas[0]][pri[0]+
userdict["courier"]]
                cprint("Current price for "+str(pri[1]),"blue")
                cprint("In mass category : "+str(mas[1]),"blue")
                cprint("for "+str(ser)+" is "+str(cur), "magenta")
                cprint("To change this press 1", "magenta")
                cprint("Else going to main screen", "yellow")
                ch9 = input()
                if ch9 == "1":
                    while True:
                        cprint("Enter new price")
                        newpri = float(input())
                        cprint("Press 1 to continue", "magenta")
                        cprint("Press 2 to re-enter", "magenta")
                        cprint("Press 3 to go back", "yellow")
                        while True:
                            try:
                                 ch10 = int(input())
```

if ch7 **not in** [1,2,3,4,5]:

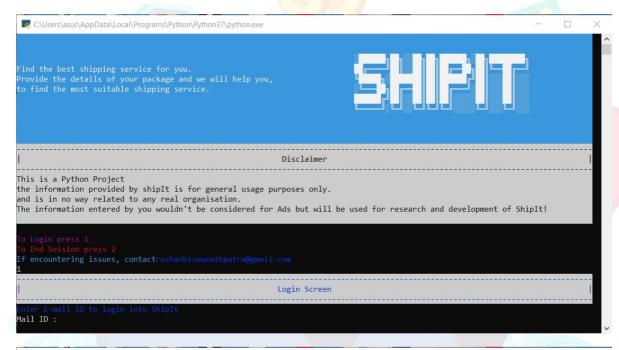
```
except:
                                 cprint("invalid input provided", "yellow")
                                 cprint("Re-enter a value from 1 to 3","yellow")
                                 continue
                            if ch10 not in [1,2,3]:
                                 cprint("invalid input provided", "yellow")
                                 cprint("Re-enter a value from 1 to 3","yellow")
                                 continue
                            break
                        if ch10 == 3:
                            break
                        elif ch10 == 2:
                            continue
                        else:
                            cprint("Changing price for "+str(pri[1]), "magenta")
                            cprint("In mass category : "+str(mas[1]),"magenta")
                            cprint("for "+str(ser)+" from ₹"+str(cur)+" to ₹ " +
str(newpri) ,"magenta")
                            cprint("To confirm press 1", "yellow")
                            cprint("To re-enter press 2", "magenta")
                            cprint("To go back press 3", "yellow")
                            while True:
                                 try:
                                     ch11 = int(input())
                                 except:
                                     cprint("invalid input provided", "yellow")
                                     cprint("Re-enter a value from 1 to 3"
,"yellow")
                                     continue
                                 if ch11 not in [1,2,3]:
                                     cprint("invalid input provided","yellow")
                                     cprint("Re-enter a value from 1 to 3",
"yellow")
                                     continue
                                 break
                            if ch11 == 3:
                                 break
                            elif ch11 == 2:
                                 continue
                            else:
                                 data["courier_prices"][ser][mas[0]][pri[0]+
userdict["courier"]] = newpri
                                 updatedata()
                                 dataupload()
                                 datadownload()
                                 getdata()
                                 prinow = data["courier_prices"][ser][mas[0]][
pri[0] + userdict["courier"]]
                                 cprint("Price changed","blue")
                                 cprint("Current price for "+str(pri[1]), "magenta")
                                 cprint("In mass category : "+str(mas[1]
), "magenta")
                                 cprint("for "+str(ser)+" is "+str(prinow),
<mark>"m</mark>agenta")
                                 break
                    cprint("To edit prices again press 1", "magenta")
                    cprint("else going to main screen","cyan")
                    ch12 = input()
```

```
if ch12 == "1":
                        continue
                   else:
                       break
                else:
                   cprint("Going to main screen","cyan")
while True:
    logincomplete = False
    datadownload()
        getdata()
        datadownload()
    except:
        updatedata()
   updatedata()
    cprint(" "*128,"white","on_cyan")
   cprint(" "*128,"white","on_cyan")
cprint(" "*128,"white","on_cyan")
   cprint(" "*75 ,"white","on_cyan",end="")
   cprint("
                    ה ה
"*14, "white", "on_cyan", attrs=['bold'])
    cprint("Find the best shipping service for you."+" "*(36)
,"white","on_cyan",attrs=['bold'],end="")
    cprint( " | |
                                       "*14, "white", "on_cyan", attrs=['bold'])
    cprint("Provide the details of your package and we will help you," + " "*18
,"white","on cyan",attrs=['bold'],end="")
    cprint( "L
"*14, "white", "on_cyan", attrs=['bold'])
    cprint( "to find the most suitable shipping service."+ "
"*32, "white", "on_cyan", attrs=['bold'], end="")
   cprint("
"*14, "white", "on_cyan", attrs=['bold'])
    cprint(" "*75 +"
"*14, "white", "on_cyan", attrs=['bold'])
   السا ﴿ الساا
"*14, "white", "on_cyan", attrs=['bold'])
    cprint(" "*128,"white","on_cyan")
    cprint(" "*128,"white","on_cyan")
   cprint(" "*128,"white","on_cyan")
    cprint("-"*128,"grey","on_white")
    cprint("|"+' '*58 + "Disclaimer" +' '*58 + "|","grey","on white")
    cprint("-"*128,"grey","on_white")
    cprint("This is a Python Project"+" "*104,"grey","on white")
    cprint("the information provided by shipIt is for general usage purposes
only."+" "*58, "grey", "on_white")
   cprint("and is in no way related to any real organisation."+"
"*78, "grey", "on_white")
   cprint("The information entered by you wouldn't be considered for Ads but will
be used for research and development of ShipIt!"+" "*10,"grey","on white")
    cprint(" "*128,"grey","on_white")
    cprint("")
    cprint("To Login press 1", "magenta")
    cprint("To End Session press 2","red")
    cprint("If encountering issues, contact","cyan",end="")
    cprint("roshanbiswanathpatra@gmail.com","blue")
```

```
while True:
        try:
            ch1 = int(input())
        except:
            cprint("You have entered invalid data", "yellow")
            continue
        if ch1 not in [1,2]:
            cprint("Enter suitable value from 1 or 2", "yellow")
        break
    if ch1 == 1:
        login()
    elif ch1 == 2:
        break
    cprint("To end session enter N else continue", "red")
    ch2 = input()
    if ch2 in ["N", "n"]:
        cprint("Program Terminated", "red")
        break
    cprint("Please Wait....","cyan")
aboutus()
#Exit Loop
while True:
    cprint("To exit press q","red")
    q = input()
    if q == "q" or q == "Q":
        break
subprocess.call(["python.exe", currentpath + "/main.py"])
```

The Output





```
To End Session press 2

If encountering issues, contactroshanbiswanathpatra@gmail.com

Login Screen

Login Screen
```

```
C:\Users\asus\AppData\Local\Programs\Python\Python37\python.exe
 Mail ID : adminmail1@gmail.com
    entered adminmail1@gmail.com as your email ID continue Press 1
 Password : pwd is wrong want to recorrect
  o go-back to main-screen press 3
 Password: notthecorrectpassword
 Please Wait...
 🌅 C:\Users\asus\AppData\Local\Programs\Python\Python37\python.exe
                                                                      Disclaimer
This is a Python Project
the information provided by shipIt is for general usage purposes only.
and is in no way related to any real organisation.
The information entered by you wouldn't be considered for Ads but will be used for research and development of ShipIt!
  f encountering issues, contactroshanbiswanathpatra@gmail.com
                                                                       Login Screen
 Mail ID : adminmail1@gmail.com
  o go-back to main-screen press 3
 Password : shipitbest
  o go-back to main-screen press 3
 C:\Users\asus\AppData\Local\Programs\Python\Python37\python.exe
                                                                   Welcome to ShipIt!
    Io Biswanath Patra
il Id : adminmaill@gmail.com
rier Service : BlueDart
change prices press 1
.og-Out press 2
```

```
Citisers/asus/AppData(Local/Programs/Python/Python37\python.exe

To edit Fast Service prices press 1
To edit Normal Service prices press 2
To go back to main screen press 3

1

Choose the weight category to edit
For 0-1 kg press 1
For 1-5 kg press 2
For 5-10 kg press 3
To go back to main screen press 5

To edit Startprice press 1
To edit Startprice press 1
To edit per km price press 2
To go back to main screen press 3

1

Current price for Start Price
In mass category: 1-5 kg
Tor fast is 55
To change this press 1
Else going to main screen
1
Enter new price
54
Press 1 to continue
Press 2 to re-enter
Press 3 to go back
```

```
C\Users\asus\AppData\Local\Programs\Python\Python3T\python.exe

for fast is 55
To change this press 1
Else going to main screen

1
Enter new price
54
Press 1 to continue
Press 2 to re-enter
Press 3 to go back
2
Enter new price
56
Press 1 to continue
Press 2 to pre-enter
Press 3 to go back
1
Changing price for Start Price
In mass category: 1-5 kg
To confirm press 1
To re-enter press 2
To go back press 3
1
Price changed
Current price for Start Price
In mass category: 1-5 kg
To go back press 3
1
Price changed
Current price for Start Price
In mass category: 1-5 kg
To go back press 3
1
Price changed
Current price for Start Price
In mass category: 1-5 kg
To go back press 3
1
Price changed
Current price for Start Price
In mass category: 1-5 kg
To for fast is 56.0
To edit prices again press 1
else going to main screen
```

```
C\Users\asus\AppData\Loca\Programs\Python\Python37\python.exe

56
Press 1 to continue
Press 2 to re-enter
Press 3 to go back
1
Changing price for Start Price
In mass category: 1-5 kg
for fast from $55 to $56.0
To confirm press 1
To re-enter press 2
To go back press 3
1
Price changed
Current price for Start Price
In mass category: 1-5 kg
for fast is 56.0
To edit prices again press 1
else going to main screen

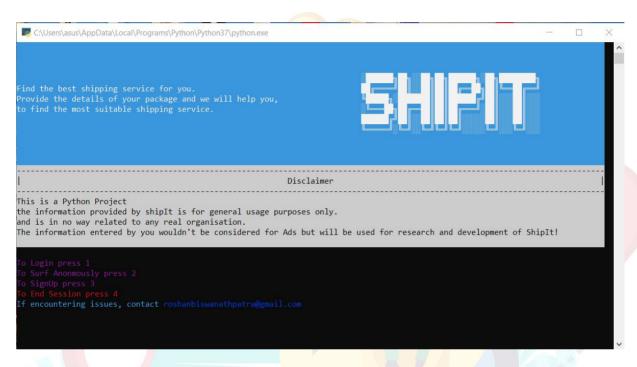
Welcome to ShipIt!

Lello BisManath Patra
Email Id: adminmaill@gmail.com
Courier Service: BlueDart
To change prices press 1
To change prices press 1
To change prices press 1
To change prices press 2
To end session enter N else continue
N
```

```
C\Users\asus\AppData\Loca\\Programs\Python\Python37\python.exe
```









```
C:\Users\asus\AppData\Local\Programs\Python\Python37\python.exe
Mail ID : valid@mail.com
   entered valid@mail.com as your email ID continue Press 1
To go-back to main-screen press 3
Password : good
Name : goodname
Please Wait....
Registration Complete with
assword : good
lease Note the ID and passwd
      encountering issues, contact r
                                                                   Login Screen
  Mail ID : mail@notin.db
      entered mail@notin.db as your email ID continue Press 1
   To go-back to main-screen press 3
   Mail ID : valid@mail.com
   C:\Users\asus\AppData\Local\Programs\Python\Python37\python.exe
     go-back to main-screen press 3
                                                                   Login Screen
    lail ID : valid@mail.com
    o go-back to main-screen press 3
   Password : good
    o go-back to main-screen press 3
```

```
C:\Users\asus\AppData\Local\Programs\Python\Python37\python.exe
                                                                                 Login Screen
Mail ID : valid@mail.com
 o go-back to main-screen press 3
 Password : good
                                                                             Welcome to ShipIt!
C:\Users\asus\AppData\Local\Programs\Python\Python37\python.exe
 To go-back to main-screen press 3
                                                                             Welcome to ShipIt!
              no existing tracks, Going to user scre
                                                                             Welcome to ShipIt!
     io goodname
il Id : valid@mail.com
Theck existing tracks press 1
add new delivery press 2
dit user details such as Name, E-mail id, password press 3
og-out press 4
C:\Users\asus\AppData\Local\Programs\Python\Python37\python.exe
Enter the mass of the package to be delivered in kgs.2
Press 1 for Berhampur
Press 1 for Bernampur
Press 2 for Kolkata
Press 3 for Vishakhapatnam
Press 4 for BBSR
Press 5 for Rourkela
Press 1 for Berhampur
Press 3 for Vishakhapatnam
Press 4 for BBSR
Press 5 for Rourkela
Press 6 for Cuttack
```

```
Courier Service 8 : 614.2902816001847
Courier Service 6 : 785.720628569129
Courier Service C : 785.7203754650129
Courier Service B press 2
For courier service A press 1
For courier service A press 2

Link to Courier service B press 2

Link to Courier service D press 4

Link to Courier service D press 5

Link to Courier service D press 4

Link to Courier service D press 5

Link to Courier service D press 4

Link to Courier service D press 5

Link to Courier service D press 5

Link to Courier service D press 6

Link to Courier Service D press 7

Link to Courier Service D press 8

Link to Courier Service D press 9

Link to Courier Service D press 1

Link to Courier Service D press 1

Link to Courier Service D press 1
```

```
C\Users\asus\AppData\Local\Programs\Python\Python37python.exe

| Composition | Composi
```

```
C\Users\asus\AppData\Loca\Programs\Python\Python3\pithon.exe

Else, Going Back to User Screen

Welcome to ShipIt!

Welcome to ShipIt!

wello goodname
Email Id : valid@mail.com
To Check existing tracks press 1
To add new delivery press 2
To edit user details such as Name, E-mail id, password press 3
To log-out press 4

Editing User Details
Press 1 to edit UserName
Press 2 to edit Mail Id
Press 3 to edit Password
Press 4 to go to User Screen

### Editing Username
Enter new Username : goodname
Enter new Username as your new Username.
To confirm Press 1
To re-enter press 2
To go back press 3

Username changed to nicename
To change username again press 1
Else going back
```

```
Username changed to nicename
To change username again press 1
Else going back

Going to Edit User Section...
Editing User Details
Press 1 to edit UserName
Press 2 to edit Mail Id
Press 3 to edit Password
Press 4 to go to User Screen
2
Editing Email Address
Current email : valid@mail.com
Enter new email address : valid@mail2.com
You entered valid@mail2.com as your new email address.
To confirm Press 1
To re-enter press 2
To go back press 3
1
Immail-address changed to valid@mail2.com
Lo change email again press 1
Else going back

Going to Edit User Section...
Editing User Details
Press 1 to edit UserName
Press 2 to edit Mail Id
Press 3 to edit Password
Press 4 to go to User Screen
```

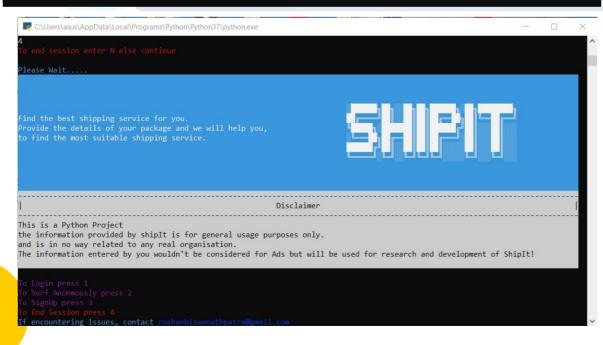
```
C\Users\asus\AppData\Loca\Programs\Python\Python37\python.exe

You entered valid@mail2.com as your new email address.
To confirm Press 1
To re-enter press 2
To go back press 3
1
Else going back

Going to Edit User Section...
Editing User Details
Press 1 to edit UserName
Press 2 to edit Mail Id
Press 3 to edit Password
Press 3 to edit Password
Press 4 to go to User Screen
4
Redirecting to User Screen

Welcome to ShipIt!

iello nicename
Email Id : valid@mail2.com
To check existing tracks press 1
To add new delivery press 2
To edit user details such as Name, E-mail id, password press 3
To log-out press 4
```



```
C:\Users\asus\AppData\Local\Programs\Python\Python37\python.exe
                                                                Welcome to ShipIt!
 ello User
ress 1 to check existing tracks
ress 2 to find suitable delivery service
 3/39007
 3439007
etails of Consignment
etails of shipment with tracking ID 83439007
Package Weight : 2.0
Dilevery End Location : 1o3020
Price of package : 614.2902816001847
Registration Time : 2021-03-08 02:40:03.767321
 lse going to previous screen
C:\Users\asus\AppData\Local\Programs\Python\Python37\python.exe
 lse going to previous screen
 edirecting to previous screen
                                                                Welcome to ShipIt!
Enter the mass of the package in kgs2
    C:\Users\asus\AppData\Local\Programs\Python\Python37\python.exe
    Enter the mass of the package in kgs2
```

```
Press 6 for Cuttack

1
    Delivery Location Choosen : Berhampurlo1947
    To Confirm Choice Press 1
    To choose location again Press 2
    1
    Delivery from Vishakhapatnam to Berhampur

The prices provided by Courier Services for Package of weight :2.0
    From Vishakhapatnam To Berhampur

Courien Service 236.49631410401008
    Courier Service A :415.1459455144111
    Courier Service B :291.46712500112784
    Courier Service 0 :411.9950608993735
    Now you can choose the most suitable shipping service for you.

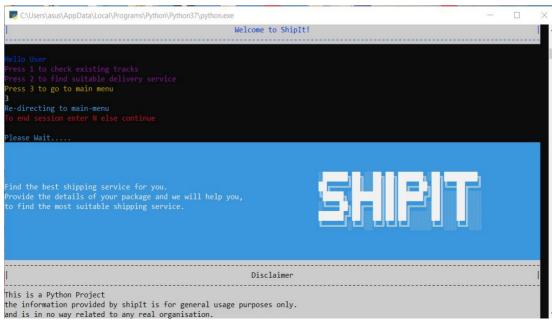
For courier service A press 1
    For courier service B press 2
    For courier service D press 4
    3
    Link to CourierEkart Logistics
    https://ekartlogistics.com
    Press 1 to save this track
    Else, going to Previous Screen
```

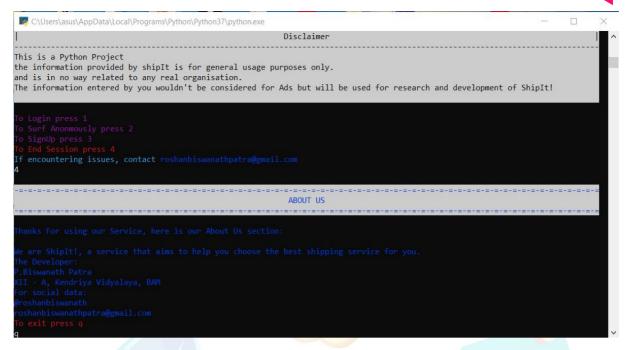
```
Select C\Users\asus\AppData\Loca\Programs\Python\Python37\python.exe

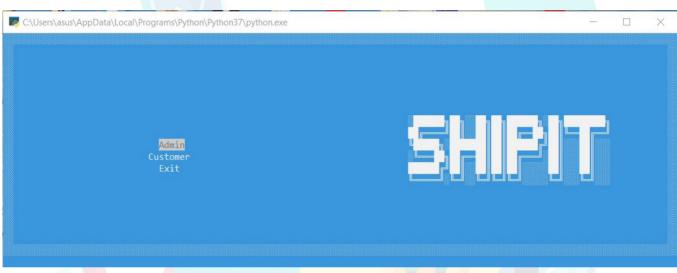
1
courier Id : 92017827
Note down this Courier Id for future reference.
To check suitable prices for another package press 1
else going to User Startup Screen

Welcome to ShipIt!

Hello User
Press 1 to check existing tracks
Press 2 to find suitable delivery service
Press 3 to go to main menu
1
Existing Tracks
Enter Tracking Id to check Consignment
92017827
Details of Consignment
Details of Shipment with tracking ID 92017827
Package Weight : 2.0
Dilevery Start Location : lo3020
Dilevery Start Location : lo3020
Dilevery Start Location : do3020
Price of package : 328.95616666817045
Courier Used : c3
Registration Time : 2021-03-08 02:49:28.900912
Package hasn't started delivery.
Press 1 to check another tracking id
Else going to previous screen
```









THANK YOU



Contributing Sources
https://docs.python.org/3/
https://stackoverflow.com/

Resources Available At https://github.com/roshanbiswanath/ShipIt

This file available at https://github.com/roshanbiswanath/ShipIt/raw/main/ShipItbyroshanbiswanath.pdf

Experience the program online at https://repl.it/@RoshanBiswanath/ShipIt

Dev Details
roshanbiswanathpatra@gmail.com
Roshanbiswanath.netlify.app
@roshanbiswanath