



PYTHON MINI PROJECT

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Introduction

This is a python mini project to implement and design a program for a cab service .

Cab service has 5 types of vehicles. Cars, Vans, 3 Wheelers, Lorries. Trucks.

Details of each vehicle as follows.

Car:

maximum number of passengers - 3 and 4

AC/ Non AC

Van:

Maximum number of passengers - 6 and 8

AC/ Non AC

3 Wheelers:

Maximum number of passengers - 3

Trucks:

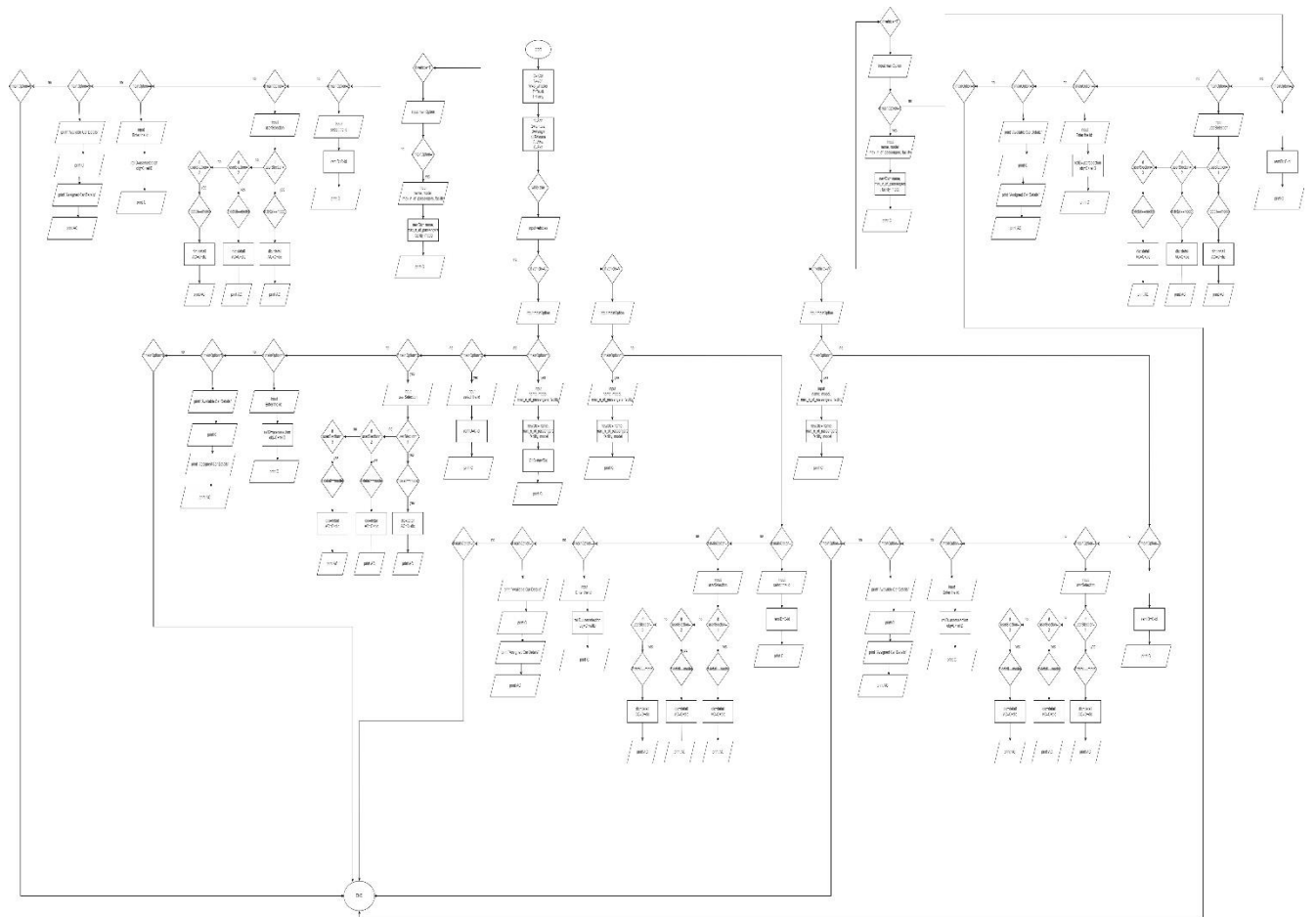
Size – 7 ft and 12 ft

Lorry:

Max load and size - 2500kg and 3500kg

Customer can be able to choose a vehicle according to his/ her requirements. Vehicles should be in a queue and the next available vehicle must be given, which matches the customer requirements.

Flowchart of the program



Source code

```
car = [
  {
    'name': 'WP-006',
    'model': 'Corella',
    'maximum_n_of_passengers': 4,
    'facility': 'AC'
  },
  {
    'name': 'CP-11',
    'model': 'Vezel',
    'maximum_n_of_passengers': 3,
    'facility': 'Non AC'
  },
  {
    'name': 'BMW-113',
    'model': 'Suzuki',
    'maximum_n_of_passengers': 4,
    'facility': 'AC'
  },
]

temDetails = []

car_detail = [
  [
    'WP-006',
    "Corella"
  ],
  [
    'CP-11',
    'Vezel'
  ],
  [
    'BMW-113',
    'Suzuki'
  ]
]

van = [
  {
    'name': 'xx-006',
    'model': 'Toyota Sienna',
    'maximum_n_of_passengers': 6,
    'facility': 'AC'
  },
  {
    'name': 'CP-11',
    'model': 'Honda Odyssey',
    'maximum_n_of_passengers': 6,
    'facility': 'Non AC'
  },
  {
    'name': 'BMW-113',
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        'model': 'Chevrolet Express',
        'maximum_n_of_passengers': 8,
        'facility': 'AC'
    },
]

temDetails1 = []

van_detail = [
    [
        'xx-006',
        " Toyota Sienna"
    ],
    [
        'CP-11',
        'Honda Odyssey'
    ],
    [
        'BMW-113',
        'Chevrolet Express'
    ]
]

_3_Wheeler = [
    {
        'name': '1112',
        'model': 'Toyota i-Road',
        'maximum_n_of_passengers': 3,
    },
    {
        'name': '1117',
        'model': 'ZAP Xebra',
        'maximum_n_of_passengers': 3,
    },
    {
        'name': '1114',
        'model': 'Nobe GT100',
        'maximum_n_of_passengers': 3,
    },
]

temDetails2 = []

_3_Wheeler_detail = [
    [
        '1112',
        "Toyota i-Road"
    ],
    [
        '1117',
        'ZAP Xebra'
    ],
]

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        [
            '1114',
            'Nobe GT100'
        ]
    ]

Truck = [
    {
        'name': '0001',
        'model': 'Agrale Marruá',
        'size': '7 ft and 12 ft'

    },
    {
        'name': '0002',
        'model': 'Bremach T-Rex',
        'size': '7 ft and 12 ft'

    },
    {
        'name': '0003',
        'model': 'Chevrolet D-Max',
        'size': '7 ft and 12 ft'

    },

]

temDetails3 = []

Truck_detail = [
    [
        '0001',
        "Agrale Marruá"
    ],
    [
        '0002',
        'Bremach T-Rex'
    ],
    [
        '0003',
        'Chevrolet D-Max'
    ]
]

Lorry = [
    {
        'name': 'A0001',
        'model': 'Daihatsu Hijet 2000 Lorry',
        'max_load': '2500kg',
        'size': '3500kg'

    },
    {
        'name': 'B0002',
        'model': 'Suzuki Every 2004 Lorry',
        'max_load': '2500kg',
        'size': '3500kg'
    }
]

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        },
        {
            'name': 'C0003',
            'model': 'Toyota Dyna 1993 Lorry',
            'max_load': '2500kg',
            'size': '3500kg'
        },
    ]

temDetails4 = []

Lorry_detail = [
    [
        'A0001',
        "Daihatsu Hijet 2000 Lorry"
    ],
    [
        'B0002',
        'Suzuki Every 2004 Lorry'
    ],
    [
        'C0003',
        'Toyota Dyna 1993 Lorry'
    ]
]

while True:
    vehicles = input("C for car\nV for van\nW for 3_wheelers\nT for Trucks\nL
for Lorry\n")
    if vehicles == 'C':

        mainOption = input("1 for Add\n2 for remove\n3 for Assign\n4 for
Release\n5 for View\n6 for Exit\n")
        if mainOption == '6':
            break
        elif mainOption == '1':
            name = input("Enter the Vehicle name: ")
            model = input("Enter the Vehicle model: ")
            maximum_n_of_passengers= int(input("How many passengers: "))
            facility = input('AC/Non AC: ')

            newDic = {
                'name': name,
                'maximum_n_of_passengers': maximum_n_of_passengers,
                'facility': facility,
                'model': model
            }
            car.append(newDic)
            print(car)
        elif mainOption == '2':
            for detail in car:
                print("ID", car.index(detail), "name: ", detail['name'], " model:
", detail['model'])
            remId = int(input("Select the ID: "))

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        car.pop(remId)
    elif mainOption == '3':
        for detail in car:
            print("ID", car.index(detail), "name: ", detail['name'], "
model: ", detail['model'], " facility: ", detail['facility'])
            userSelection = input("Assign 1 for Corella\nAssign 2 for
Vezel\nAssign 3 for Suzuki\n")
            if userSelection == '1':
                for detail in car:
                    if detail['model: '] == 'Coreella':
                        dic = detail
                        id = car.index(detail)
                        break
            elif userSelection == '2':
                for detail in car:
                    if detail['model: '] == 'Vezel':
                        dic = detail
                        id = car.index(detail)
                        break
            elif userSelection == '3':
                for detail in car:
                    if detail['model: '] == 'Suzuki':
                        dic = detail
                        id = car.index(detail)
                        break
            temDetails.append(dic)
            car.pop(id)
    elif mainOption == '4':
        for detail in temDetails:
            print("ID", temDetails.index(detail), "name: ", detail['name'], "
model: ", detail['model'],)

            userSelection = int(input("Enter the id: "))
            relId = userSelection
            obj = temDetails[relId]
            car.append(obj)
            temDetails.pop(relId)
    elif mainOption == '5':
        print("Available car_detail")
        for detail in car:
            print("ID", car.index(detail), "name: ", detail['name'], "
model: ", detail['model'], " facility: ", detail['facility'])
        print("Assigned car_detail")
        for detail in temDetails:
            print("ID", temDetails.index(detail), "name: ", detail['name'], "
facility: ", detail['facility'], " model ",
                detail['model'])

    elif vehicles == 'V':

        mainOption = input("1 for Add\n2 for remove\n3 for Assign\n4 for
Release\n5 for View\n6 for Exit\n")
        if mainOption == '6':
            break
        elif mainOption == '1':
            name = input("Enter the Vehicle name: ")
            model = input("Enter the Vehicle model: ")

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maximum_n_of_passengers = int(input("How many passengers: "))
facility = input('AC/Non AC: ')

newDic = {
    'name': name,
    'maximum_n_of_passengers': maximum_n_of_passengers,
    'facility': facility,
    'model': model
}
van.append(newDic)
print(van)
elif mainOption == '2':
    for detail in van:
        print("ID", van.index(detail), "name: ", detail['name'], "
model: ", detail['model'])
        remId = int(input("Select the ID: "))
        van.pop(remId)
elif mainOption == '3':
    for detail in van:
        print("ID", van.index(detail), "name: ", detail['name'], "
model: ", detail['model'], " facility: ",
              detail['facility'])
        userSelection = input("Assign 1 for Corella\nAssign 2 for
Vezel\nAssign 3 for Suzuki\n")
        if userSelection == '1':
            for detail in van:
                if detail['model: '] == 'Corella':
                    dic = detail
                    id = van.index(detail)
                    break
        elif userSelection == '2':
            for detail in van:
                if detail['model: '] == 'Vezel':
                    dic = detail
                    id = van.index(detail)
                    break
        elif userSelection == '3':
            for detail in van:
                if detail['model: '] == 'Suzuki':
                    dic = detail
                    id = van.index(detail)
                    break
        temDetails1.append(dic)
        van.pop(id)
elif mainOption == '4':
    for detail in temDetails1:
        print("ID", temDetails1.index(detail), "name: ",
detail['name'], " model: ", detail['model'],
              " facility: ", detail['facility'])

        userSelection = int(input("Enter the id: "))
        relId = userSelection
        obj = temDetails1[relId]
        van.append(obj)
        temDetails1.pop(relId)
elif mainOption == '5':
    print("Available van detail")

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        for detail in van:
            print("ID", van.index(detail), "name: ", detail['name'], "
model: ", detail['model'], " facility: ",
                detail['facility'])
            print("Assigned van_detail")
        for detail in temDetails1:
            print("ID", temDetails1.index(detail), "name: ",
detail['name'], " facility: ", detail['facility'],
                " model ",
                detail['model'])

elif vehicles == 'W':

    mainOption = input("1 for Add\n2 for remove\n3 for Assign\n4 for
Release\n5 for View\n6 for Exit\n")
    if mainOption == '6':
        break
    elif mainOption == '1':
        name = input("Enter the Vehicle name: ")
        model = input("Enter the Vehicle model: ")
        maximum_n_of_passengers = int(input("How many passengers: "))

        newDic = {
            'name': name,
            'maximum_n_of_passengers': maximum_n_of_passengers,
            'model': model
        }
        _3_Wheeler.append(newDic)
        print(_3_Wheeler)
    elif mainOption == '2':
        for detail in _3_Wheeler:
            print("ID", _3_Wheeler.index(detail), "name: ", detail['name'],
" model: ", detail['model'])
            remId = int(input("Select the ID: "))
            _3_Wheeler.pop(remId)
    elif mainOption == '3':
        for detail in _3_Wheeler:
            print("ID", _3_Wheeler.index(detail), "name: ", detail['name'],
" model: ", detail['model'], )
            userSelection = input("Assign 1 for Toyota i-Road\nAssign 2 for ZAP
Xebra\nAssign 3 for Nobe GT100\n")
            if userSelection == '1':
                for detail in _3_Wheeler:
                    if detail['model: '] == 'Toyota i-Road':
                        dic = detail
                        id = _3_Wheeler.index(detail)
                        break
            elif userSelection == '2':
                for detail in _3_Wheeler:
                    if detail['model: '] == 'ZAP Xebra':
                        dic = detail
                        id = _3_Wheeler.index(detail)
                        break
            elif userSelection == '3':
                for detail in _3_Wheeler:
                    if detail['model: '] == 'Nobe GT100':

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        dic = detail
        id = _3_Wheeler.index(detail)
        break
    temDetails2.append(dic)
    _3_Wheeler.pop(id)
elif mainOption == '4':
    for detail in temDetails2:
        print("ID", temDetails2.index(detail), "name: ",
detail['name'], " model: ", detail['model'])

    userSelection = int(input("Enter the id: "))
    relId = userSelection
    obj = temDetails2[relId]
    _3_Wheeler.append(obj)
    temDetails2.pop(relId)
elif mainOption == '5':
    print("Available _3wheeler_detail")
    for detail in _3_Wheeler:
        print("ID", _3_Wheeler.index(detail), "name: ", detail['name'],
" model: ", detail['model'])
    print("Assigned _3_wheeler_detail")
    for detail in temDetails2:
        print("ID", temDetails2.index(detail), "name: ",
detail['name'], " model ",
        detail['model'])

elif vehicles == 'T':
    mainOption = input("1 for Add\n2 for remove\n3 for Assign\n4 for
Release\n5 for View\n6 for Exit\n")
    if mainOption == '6':
        break
    elif mainOption == '1':
        name = input("Enter the Vehicle name: ")
        model = input("Enter the Vehicle model: ")
        size = int(input("size: "))

        newDic = {
            'name': name,
            'size': size,
            'model': model
        }
        Truck.append(newDic)
        print(Truck)
    elif mainOption == '2':
        for detail in Truck:
            print("ID", Truck.index(detail), "name: ", detail['name'], "
model: ", detail['model'], " size: ", detail['size'],)
            remId = int(input("Select the ID: "))
            Truck.pop(remId)
    elif mainOption == '3':
        for detail in Truck:
            print("ID", Truck.index(detail), "name: ", detail['name'], "
model: ", detail['model'], " size: ", detail['size'], )
            userSelection = input(
                "Assign 1 for Agrale Marruá\nAssign 2 for Bremach T-Rex\nAssign
3 for Chevrolet D-Max\n")

```

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        if userSelection == '1':
            for detail in Truck:
                if detail['model: '] == 'Agrale Marruá':
                    dic = detail
                    id = Truck.index(detail)
                    break
        elif userSelection == '2':
            for detail in Truck:
                if detail['model: '] == 'Bremach T-Rex':
                    dic = detail
                    id = Truck.index(detail)
                    break
        elif userSelection == '3':
            for detail in Truck:
                if detail['model: '] == 'Chevrolet D-Max':
                    dic = detail
                    id = Truck.index(detail)
                    break
        temDetails3.append(dic)
        Truck.pop(id)
    elif mainOption == '4':
        for detail in temDetails3:
            print("ID", temDetails3.index(detail), "name: ",
detail['name'], " model: ", detail['model'])

        userSelection = int(input("Enter the id: "))
        relId = userSelection
        obj = temDetails3[relId]
        Truck.append(obj)
        temDetails3.pop(relId)
    elif mainOption == '5':
        print("Available Truck_detail")
        for detail in Truck:
            print("ID", Truck.index(detail), "name: ", detail['name'], "
model: ", detail['model'], " size: ",
detail['size'])
        print("Assigned Truck_detail")
        for detail in temDetails3:
            print("ID", temDetails3.index(detail), "name: ",
detail['name'], " size: ", detail['size'], " model ",
detail['model'])

    elif vehicles == 'L':
        mainOption = input("1 for Add\n2 for remove\n3 for Assign\n4 for
Release\n5 for View\n6 for Exit\n")
        if mainOption == '6':
            break
        elif mainOption == '1':
            name = input("Enter the Vehicle name: ")
            model = input("Enter the Vehicle model: ")
            size = int(input("size: "))
            max_loard = input("Maximum Loard: ")

            newDic = {
                'name': name,
                'size': size,

```

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        'model': model
    }
    Lorry.append(newDic)
    print(Lorry)
elif mainOption == '2':
    for detail in Lorry:
        print("ID", Lorry.index(detail), "name: ", detail['name'], "
model: ", detail['model'])
        remId = int(input("Select the ID: "))
        Lorry.pop(remId)
elif mainOption == '3':
    for detail in Lorry:
        print("ID", Lorry.index(detail), "name: ", detail['name'], "
model: ", detail['model'], )
        userSelection = input(
            "Assign 1 for Daihatsu Hijet 2000 Lorry \nAssign 2 for Suzuki
Every 2004 Lorry\nAssign 3 for Toyota Dyna 1993 Lorry\n")
        if userSelection == '1':
            for detail in Lorry:
                if detail['model: '] == 'Daihatsu Hijet 2000 Lorry':
                    dic = detail
                    id = Lorry.index(detail)
                    break
            elif userSelection == '2':
                for detail in Lorry:
                    if detail['model: '] == 'Suzuki Every 2004 Lorry':
                        dic = detail
                        id = Lorry.index(detail)
                        break
            elif userSelection == '3':
                for detail in Lorry:
                    if detail['model: '] == 'Toyota Dyna 1993 Lorry':
                        dic = detail
                        id = Lorry.index(detail)
                        break
            temDetails4.append(dic)
            Lorry.pop(id)
elif mainOption == '4':
    for detail in temDetails4:
        print("ID", temDetails4.index(detail), "name: ",
detail['name'], " model: ", detail['model'])

        userSelection = int(input("Enter the id: "))
        relId = userSelection
        obj = temDetails4[relId]
        Lorry.append(obj)
        temDetails4.pop(relId)
elif mainOption == '5':
    print("Available Lorry_detail")
    for detail in Lorry:
        print("ID", Lorry.index(detail), "name: ", detail['name'], "
model: ", detail['model'], " size: ",
            detail['size'], "max_load: ", detail['max_load'])
    print("Assigned Lorry_detail")
    for detail in temDetails4:
        print("ID", temDetails4.index(detail), "name: ",
detail['name'], " size: ", detail['size'], "max_load: ",

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```
        detail['max_load'], " model ",  
        detail['model'])  
  
    else:  
        print("Try again")
```

Conclution

In future this program will be improved .