

PART 1

To run the program we should first consult it.

```
?- consult('C:/Users/yasir/Desktop/pl hw4/PL_HW4/part1.pl').  
true.
```

```
?-
```

With **available_delivery_personel(ObjectID)** function we get all the available delivery personels to do the object delivery.

TEST FOR ALL 5 OBJECTS

Object 1

```
?- available_delivery_personel(1).  
personel ID: 2 can deliver in 7 units of time. Path: [Cafeteria,  
Admin Office,Admin Office,Library,Social Sciences Bld.]  
personel ID: 3 can deliver in 4 units of time. Path: [Library,Ad  
min Office,Admin Office,Library,Social Sciences Bld.]  
No other suitable delivery personel found.  
true.
```

Object 2

```
?- available_delivery_personel(2).  
personel ID: 3 can deliver in 6 units of time. Path: [Library,Ad  
min Office,Engineering Bld.,Engineering Bld.,Lecture Hall A]  
No other suitable delivery personel found.  
true.
```

Object 3

```
?- available_delivery_personel(3).  
personel ID: 2 can deliver in 18 units of time. Path: [Cafeteria  
,Admin Office,Engineering Bld.,Lecture Hall A,Lecture Hall A,Eng  
ineering Bld.,Admin Office,Cafeteria]  
personel ID: 3 can deliver in 15 units of time. Path: [Library,I  
nstitute Y,Lecture Hall A,Lecture Hall A,Engineering Bld.,Admin  
Office,Cafeteria]  
No other suitable delivery personel found.  
true.
```

Object 4

```
?- available_delivery_personel(4).  
personel ID: 3 can deliver in 10 units of time. Path: [Library,L  
ibrary,Social Sciences Bld.,Institute X]  
No other suitable delivery personel found.  
true.
```

Object 5

```
?- available_delivery_personel(5).  
Object is already in delivery by personel ID 1.  
true.
```

PART 2

First consulting of course.

```
?- consult('C:/Users/yasir/Desktop/pl hw4/PL_HW4/part2.pl').  
true.
```

Then we call **classify(SepalLength, SepalWidth, PetalLength, PetalWidth)** function.

Test Cases.

```
?- classify(5.1, 3.5, 1.4, 0.2).  
Iris-setosa  
true.
```

```
?- classify(7.0, 3.2, 4.7, 1.4).  
Iris-versicolor  
true.
```

```
?- classify(6.3, 3.3, 6.0, 2.5).  
Iris-virginica  
true.
```

```
?- classify(5.4, 3.9, 1.7, 0.4).  
Iris-setosa  
true.
```

```
?- classify(6.9, 3.1, 4.9, 1.5).  
Iris-versicolor  
true.
```

```
?- classify(6.7, 3.0, 5.2, 2.3).  
Iris-virginica  
true.
```

```
?- classify(5.1, 3.8, 1.6, 0.2).  
Iris-setosa  
true.
```

```
?- classify(5.7, 2.8, 4.1, 1.3).  
Iris-versicolor  
true.
```

```
?- classify(7.2, 3.6, 6.1, 2.5).  
Iris-virginica  
true.
```