Lecture 1 – Python Arrays and OOPs

Python Arrays

Used to store multiple values in a single variable

Python does not have built-in support for arrays, but Python lists can be used instead

```
#Storing in multiple variable
car1 = "Ford";
car2 = "Volvo";
car3 = "BMW";
#Using Array
cars = ["Ford", "Volvo", "BMW"]
print(car1)
cars
```

```
Ford
```

```
['Ford', 'Volvo', 'BMW']
```


Python Arrays

01 Accessing an element

```
x = cars[0]
x
```

```
'Honda'
```

02 Modifying an element

```
cars[0] = "Honda"
print(cars[0])
```

```
Honda
```

03 Getting the length of an array

```
x = len(cars)
x
```

```
3
```

04 Looping an array

```
for x in cars:
  print(x)
```

```
Honda
BMW
Opel
```

Python Arrays

05 Adding an element

```
cars.append("Opel")
print(len(cars))
```

```
4
```

06 Removing an element from a position

```
cars
```

```
['Ford', 'Volvo', 'BMW']
```

```
cars.pop(1)
cars
```

```
['Ford', 'BMW']
```

07 Removing a specific element

```
cars
```

```
['Ford', 'Volvo', 'BMW']
```

```
cars.remove("BMW")
cars
```


Python: Classes and Objects

What is a class and what is an object in Python?

1. Python is an object-oriented programming language
2. Almost everything in Python is an object, with its properties and methods
3. A class is like a 'blueprint' for creating objects

Class

```
class MyClass:
  x = 5
```

Object

```
obj1 = MyClass()
print(obj1.x)
```

```
5
```