

Lesson 12

Object-Oriented Programming.OOP
principles(Encapsulation,Polyporphism,Inheri
tence)



Class

Java bu ob'ektga yo'naltirilgan dasturlash tili, shuning uchun unda "sinf" va "ob'ekt" kabi tushunchalar asosiy rol o'ynaydi. Har qanday Java dasturi o'zaro ta'sir qiluvchi ob'ektlar to'plami sifatida taqdim etiladi.

Ob'ektning shabloni yoki tavsifi - bu **sinf**, ob'ekt esa ushbu sinfning namunasi(obyekti)ni anglatadi. Barchamiz bir odam haqida bir fikrga egamiz - ikkita qo'l, ikki oyoq, bosh, tana va boshqalar. Ba'zi shablonlar mavjudki - bu shablonni klass deb atash mumkin. Haqiqiy shaxs (aslida ushbu sinfning misoli yoki namunasi) ushbu sinf ob'ekti hisoblanadi.

Class - declaration



```
class _____ {  
  
}
```

```
class Sample {  
  
}
```

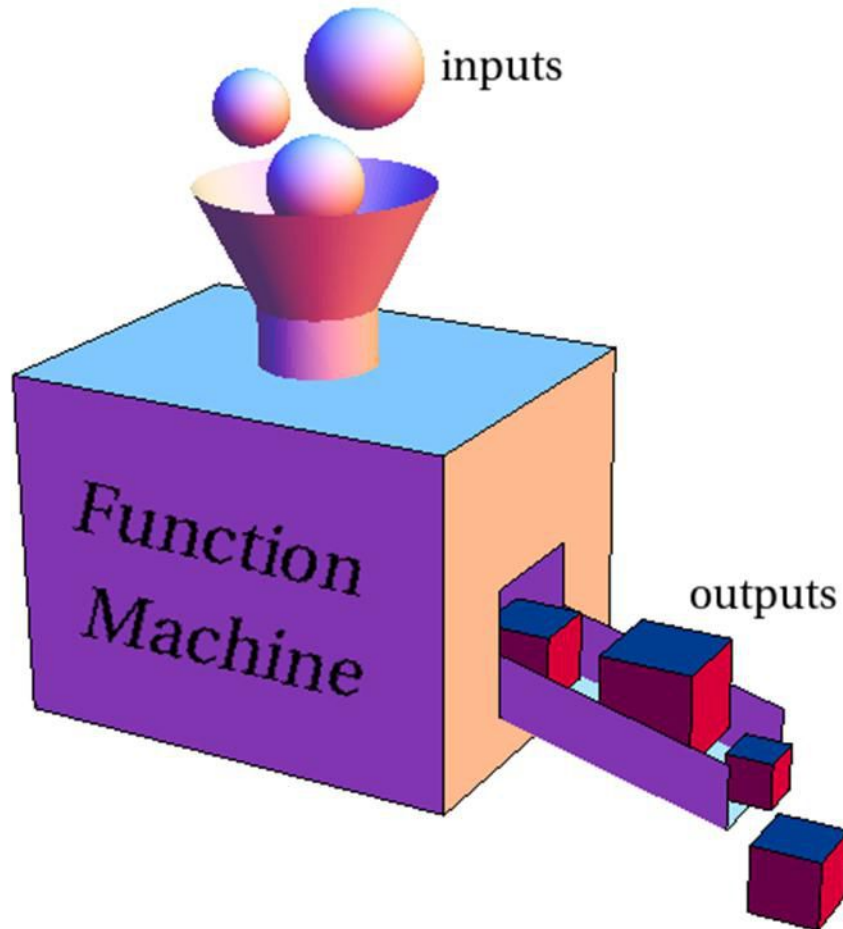
Class - fields



```
class Sample {  
    int age;  
    String name;  
}
```

```
class Student {  
    String lastName  
    String firstName;  
    int course;  
}
```

Class - methods



```
class Student {  
    void show(String message){  
        //...  
    }  
}
```

Class - methods



```
static int getSquare(int a) {  
    int t = a * a;  
    return t;  
}
```

```
public static void main(String[] args) {  
    int son = 2;  
    int t = getSquare(son);  
    System.out.println(t);  
}
```

Class - methods



```
static void Dilmurod(int a) {  
    System.out.println("Javob:" + a);  
}  
  
public static void main(String[] args) {  
    Dilmurod(45 + 78);  
}
```

Class - methods



```
static void chiqarish(int a){  
    System.out.println(a);  
}
```

```
public static void main(String[] args) {  
    int c = 2;  
    int umid = getSquare(c);  
    chiqarish(umid);  
}
```


Class - methods



```
void showMessage(String message){  
    System.out.println(message);  
}
```

```
int getSquare(int num){  
    int t = num * num;  
    return t;  
}
```

Class - Example



```
class Kasr{  
    int surat;  
    int maxraj;  
}
```

Class - object



```
Kasr a;
```

```
a = new Kasr();
```

```
Kasr b = new Kasr();
```

```
Kasr c = b;
```

Class - object



```
public static void main(String[] args) {  
    Kasr a = new Kasr();  
    a.surat = 2;  
    a.maxraj = 3;  
  
    Kasr b = new Kasr();  
    b.maxraj = 15;  
    b.surat = 14;  
  
    System.out.println(a.surat + "/" + a.maxraj);  
    System.out.println(b.surat + "/" + b.maxraj);  
}  
}
```

Class - Example



```
class Kasr{  
    int surat;  
    int maxraj;  
    void show(){  
        System.out.println(surat + "/" + maxraj);  
    }  
}
```

Class – use class



```
Kasr a;
```

```
a.surat = 2;
```

```
a.maxraj = 5;
```

```
a.show();
```

```
Kasr b;
```

```
b.show();
```

```
b.surat = 20;
```

```
b.maxraj = 1258;
```

```
b.show();
```

The end