

Today's Agenda :-

Generics

2D array

List of coordinates = { (- -),
 |
 (lat, long) (- -),
 (- -) }



class Pair {

{
 double lat ; }
 double long ; }

} We are restricting the datatype

Pair p = new Pair()

~~String, long~~ ✗

Make this Pair a generic one ?

1 Objects class in Java

↳ Class in Java which is
parent of every other
class in Java.

class Pair {

Object first ; } can accept any data type
Object second ; } values.
}

Pair p1 = new Pair();

p1. first = "America"

p1. second = 21,000,000 ✓

p1. second = India ? Problem ?

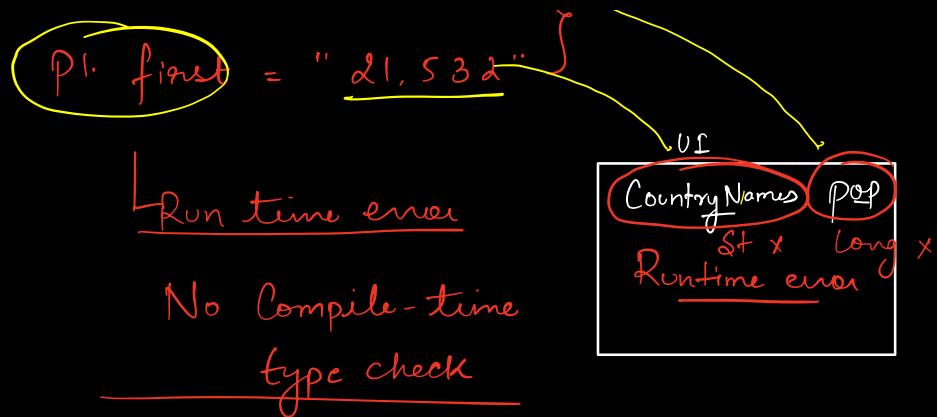
(country-name, population) class

Integer =

vs

int ? ✗

Read.



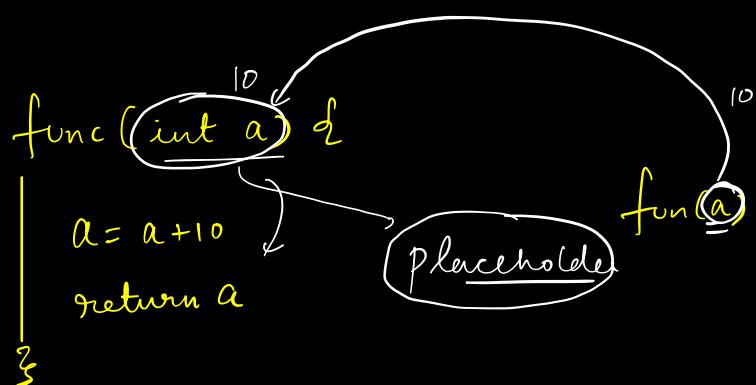
"Fail fast"

To ensure compile time check & as well as
keep data types generic



Generics
↓

Parameterized Data types.



class Pair <A, B,> {

A first

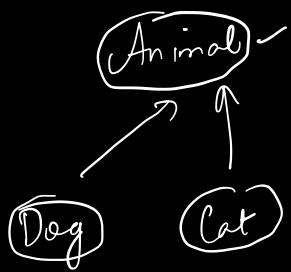
B Second

Pair <Integer, String> p = new Pair <>();

p1. first = "xyz" X

p1. first = 25 ✓

Generics
Applies a
Compile time check



doSomething (list < Animal > animals) {

 animals.add(new Dog());
 animals.add(new Cat());
 animals.add(new Animal());;

} X

 Animal n = new Dog(); ✓

List < Dog > dogs = { - - - }

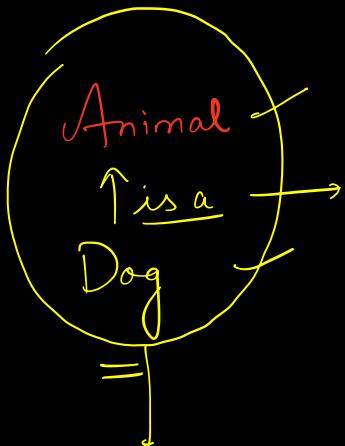
 doSomething(dogs)

list < Animals >

 new Dog()
 new Cat()
 new Animal()

 new list < Dogs > ();

 { new Dog()
 new Cat()
 new Animal() } X



`list < Animal > ✓`

`List < Dog > -`

`List < Animal >`

