

**What are unicast and broadcast? What are the differences between unicast, multicast, and broadcast?**

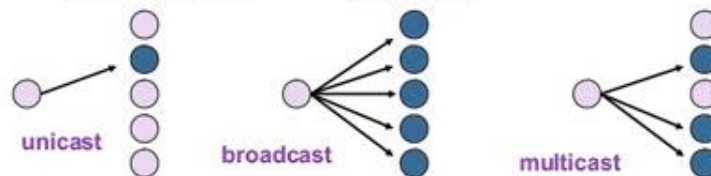
- **Unicast:** from one source to one destination i.e. One-to-One
- **Broadcast:** from one source to all possible destinations i.e. One-to-All
- **Multicast:** from one source to multiple destinations stating an interest in receiving the traffic i.e. One-to Many

## IP Service

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- IP supports the following services:

- one-to-one (unicast)
- one-to-all (broadcast)
- one-to-several (multicast)



- IP multicast also supports a many-to-many service.
- IP multicast requires support of other protocols (IGMP, multicast routing)

## What are java Generics and wildcards?

**Generics** are a facility of generic programming that were added to the Java programming language in 2004 within version J2SE 5.0. They were designed to extend Java's type system to allow "a type or method to operate on objects of various types while providing compile-time type safety". [1] The aspect compile-time type safety was not fully achieved, since it was shown in 2016 that it is not guaranteed in all cases

Wildcards is one of a type of Generics.

**Wildcards** in Java are basically the question marks which we use in generic programming, it basically represents the unknown type. We use Java Wildcard widely in situations such as in a type of parameter, local variable, or field and also as a return type.

Unlike arrays, different instantiations of a generic type are not compatible with each other, not even explicitly. We can remove this incompatibility by using wildcard '?' as an actual type parameter.

Wildcards are nothing but the question mark(?) that you use in the Java Generics. We can use the Java Wildcard as a local variable, parameter, field or as a return type. But, when the generic class is instantiated or when a generic method is called, we can't use wildcards

### **What is the difference between array list and enums?**

Java Virtual Machine considers enums and arrays as classes.

Enum is a keyword in java and is a type like class or interface and it can be used to define set of enum constants. Enum are collection of named constants, Once you declared Enum constants you cannot change there value . Enum's are type-safe can be used in switch cases.

Eg:

```
public enum Day { MONDAY, TUESDAY, WEDNESDAY, THURSDAY, FRIDAY, SATURDAY, SUNDAY }
```

An array is used to store collection of data of same datatypes like used in other programming languages. You can add,delete,modify array elements.

Eg:

```
char[] vowels = {'A','E','I','O','U'}
```

```
int[] numbers = {1,2,3,4,5,6,7,8,9}
```