Hi viewers, here I am sharing list of interview questions.

* [Why are using **Java**?](https://narayanatutorial.com/blog/java-basics-interview-questions-and-answers/)
* Explain java **OOPs** concepts with one real time example?
* What is **String**?
* What is difference between **Stringbuffer** and **Stringbuilder**?
* What are the precautions/ Steps to create user defined **immutable** class?
* Can we use user defined immutable object as **hashkey**? **Yes** or **No** explain why?
* What is difference **finally** and **finalyze**?
* What is **garbage** collection?
* How Objects are **garbaged**?
* What is **Hashmap** and explain?
* What is difference between **HashMap** and **HashTable**?
* How to create user defined **HashKey**?
* **Immutable** or **user defined hashkey** out which is efficient way to use **Hashkey**?
* What is **Singleton** Design Pattern?
* How to create User Defined **Singleton** Class?
* What is **Thread**?
* What is difference between **Join()** and **Wait()** methods?
* What is **Concurrent HashMap**?
* What is difference between **HashMap** and **Concurrent HashMap**?
* What is**Fail Safe** and **Fail Fast** Iterator?

1. What is the difference between executable file and .class file?

.exe file consists of machine level language instructions for microprocessor and is system dependent. .class file is a byte code for jvm . it is system independent.

1. Diff between a function and method?

A method is a function inside a class. We cant write any method without a class. But in C/c++ we can write inside/outside class those are member functions.

1. Which part of JVM will allocate memory for a program?

Class Loader subsystem.

1. Why pointers are eliminated in java?

It leads to confusion to a programmer. Pointers may crash program easily by adding to pointers and it leads to create hacking and virus creation

1. Which algorithm is used for garbage collector?

Mark and sweep Algorithm

1. How can we call the Garbage Collector?
   * By calling gc() method of Runtime class or System class
2. What is JIT compiler?

It is a part of JVM which improves the speed of execution of a java program. Which runs the method multiple times. Instead of loading and running.

1. Difference between Static and Instance method?

Static methods belong to Class which invoke at the time of class loaing. But instance methods are specific to the instance created which is late binding(dynamic binding). Static methods are early binding(compile time).

1. Which class is the super class for all the classes?

Java.lang.Object class is the root for all the classes.

1. Can we override the static methods?

We cant override the Static methods. Static methods are belong to Class not belongs to object. Inheritance will not be applicable for class members.

1. What is a Proxy class ?

It is a helper class to give duplicate objects.

1. What is the difference between super() and this()?

Super() is used to call the super class constructor. this() is used to call the constructors in the same class means parameterized constructor.

1. When to use String and StringBuffer?

String is an immutable object we cant change the value of a String. It will create a new Object. Stringbuffer updates the existing object instead of creating new object. If more modifications on same object then we go for StirngBuffer.

1. How can we prevent the method from being overridden?

By using final key word at method level we cant override in subclass. Similarly one can use final key word in class level.

1. Does System.exit() in try block execute code in finally block?

No. System.exit() terminate the program .

1. Explain java **OOPs** concepts with one real time example?

It revolves around the concepts of the objects.

* 1. Object:- An object is an instance of a class. It contains properties and functions. They are like real world objects. Car,Bus
  2. Class:- A class defines the blueprint of the objects. They define the functions or properties of the Object. Ex Laptop is a class but your laptop is an object.
  3. Inheritance:- Inheritance is the concept where an object is based on another object acquiring properties of one class to another class. Extends key word.
  4. Polymorphism:- It is concept where an object behaves differently in different situations. There are two types of polymorphism. Compile time-Method over loading and Runtime Polymorphism—Method Overriding.
  5. Abstraction:- Abstraction is the concept of hiding the internal details and describing things in simple terms. A method that add two integers. The internal process is hidden from the outer world. It can be achieved by using Inheritance and Encapsulation.
  6. Encapsulation:- Encapsulation is the technique used to implement the abstraction in Object Oriented Programming. Encapsulation is used for Access restriction to class members and methods. Access modifier key words are used in Encapsulation
  7. Association:- Association is the OOPS concept that defines the relation between the two objects. Association is relation between two separate classes which establishes through objects. Either one to one or one to many Teacher -Student, Student- class.

Aggregation is a special type of Association where we have Has-a Relationship is called aggregation

Class A {

B b;

}

* 1. Composition:- It is a special case of Composition. It is a design technique to implement has-a relationship in classes. It is more restrictive form of Aggreation. When the contained object in a Has-a relationship doesnot exist on its own. House has a Room. Room cant exist without House.



2. What is a String?

String is a sequence of characters but its not a primitive type. When we create a String in java, it actually creates an object of type String. It is immutable means it cant be changed once its created. We have two classes for String manipulation StringBuffer and StringBuilder.

Create a String:

* + 1. Using String literals –String str=”Satti Babu” – It is created in JavaStringPool memory.
    2. New Key word String str=new String(); It stores in heap memory.

It has two methods equals() and equalsIgnoreCase(). It implements comparable interface which has to methods compareTo(), compareToIgnoreCase();