Assignment-7

* Class oops

A class can be considered as a blueprint using which you can create as many objects as you like. For example, here we have a class Website that has two data members (also known as fields, instance variables and object states). This is just a blueprint, it does not represent any website, however using this we can create Website objects (or instances) that represents the websites. We have created two objects, while creating objects we provided separate properties to the objects using constructor.Collection of objects*is* called class. It is a logical entity.A class can also be defined as a blueprint from which you can create an individual object. Class doesn't consume any space.

* Structure

Type casting

Type casting is when you assign a value of one primitive data type to another type.  When you assign the value of one data type to another, you should be aware of the compatibility of the data type. If they are compatible, then [Java](https://www.edureka.co/blog/what-is-java/) will perform the conversion automatically known as Automatic Type Conversion and if not, then they need to be casted or converted explicitly.

In Java, there are two types of casting:

* **Widening Casting** (automatically) - converting a smaller type to a larger type size  
  byte -> short -> char -> int -> long -> float -> double
* **Narrowing Casting** (manually) - converting a larger type to a smaller size type  
  double -> float -> long -> int -> char -> short -> byte

Json

**JSON stands for JavaScript Object**. It is an independent data exchange format and is the best alternative for XML. This chapter explains how to parse the JSON file and extract necessary information from it.

Android provides four different classes to manipulate JSON data. These classes are **JSONArray,JSONObject,JSONStringer and JSONTokenizer.**

**Recyclerview**

Android RecyclerView is a more advanced, powerful and flexible version of the [ListView](https://www.journaldev.com/9247/android-listview-example-tutorial). Android RecyclerView is similar to ListView except that it forces us to use **RecyclerView.ViewHolder** class to hold the elements which is not a compulsion in ListView

As the name suggests, Android RecyclerView is used to reuse cells when scrolling up and down by recycling the items in the list. Another improvement in RecyclerView is that it allows us to set the [LayoutManagers](https://www.journaldev.com/9495/android-layout-linearlayout-relativelayout) dynamically at runtime, unlike the ListView which was only available in a Vertical scrolling List. RecyclerView allows us to set the following types of Layouts at runtime.

Classes

* The **RecyclerView.ItemAnimator** class provides better support to animating the views unlike the ListViews
* The **RecyclerView.ItemDecorator** class provides better support when it comes to adding borders and dividers thereby giving huge control to us