Generic Classes

What

- Generic class is a class, which contains one or more "type parameters".
- You must pass any data type (standard data type / structure / class), while creating object for the generic class.

How

Generic Class - Example

```
class ClassName<T>
{
    public T FieldName;
}
```

Object of Generic Class - Example

```
ClassName<int> referenceVariable = new ClassName<int> ( );
```

Advantages

- The same field may belong to different data types, w.r.t. different objects of the same class.
- You will decide the data type of the field, while creating the object, rather than while creating field in the class.
- It helps you in code reuse, performance and type-safety.
- You can create your own generic-classes, generic-methods, generic-interfaces and generic-delegates.
- You can create generic collection classes.
  - The .NET framework class library contains many new generic collection classes in System.Collections.Generic namespace.

- The generic type parameter (T) acts as "temporary data type", which represents the actual data type, provided by the user, while creating object.
- You can have multiple "generic type parameters" in the same class (for use for different fields.
- Generics are introduced in C# 2.0.