



A report on my java project

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About the project

The project was completed on Microsoft Visual Studio. Before this project I was very unfamiliar with IDE. This project enabled me to learn how to work in IDE. The source code of my project is in the src folder.

Different concepts of Java used in this project

The concepts that were used in this project are:

- Concept of class and object

Everything in Java is associated with classes and objects, along with its attributes and methods. A class is a user-defined blueprint or prototype from which objects are created. It represents the set of properties or methods that are common to all objects of one type.

Whereas is a basic unit of Object-Oriented Programming and represents the real-life entities. A typical Java program creates many objects, which as you know, interact by invoking methods.

- Exception handling in Java

Exception is an abnormal condition. In Java, an exception is an event that disrupts the normal flow of the program. It is an object which is thrown at runtime. The Exception Handling in Java is one of the powerful mechanisms to handle the runtime errors so that the normal flow of the application can be maintained.

Types of Java Exceptions

There are mainly two types of exceptions: checked and unchecked. Here, an error is considered as the unchecked exception. According to Oracle, there are three types of exceptions:

-checked, unchecked and error.

- Concept of string in java

In Java, string is basically an object that represents a sequence of char values. An array of characters works same as Java string. String is a sequence of characters. But in Java, string is an object that represents a sequence of characters. The java.lang.String class is used to create a string object. Java String class provides a lot of methods to perform operations on strings such as compare(), concat(), equals(), split(), length(), replace(), etc.

For example;

```
char[] ch={'j','a','v','a','t','p','o','i','n','t'};
```

```
String s=new String(ch);
```

is same as

```
String s="javatpoint";
```

- Concept of collection api in java

The Java Collections API provides Java developers with a set of classes and interfaces that makes it easier to work with collections of objects, e.g. lists, maps, stacks etc. Rather than having to write your own collection classes, Java provides these ready-to-use collection classes for you. It fosters software reuse and it reduces the effort required to learn APIs.

- Concept of java swing and java awt

This is the most used concept in my project. Swing components are the basic building blocks of an application. Unlike AWT, Java Swing provides platform-independent and lightweight components. The javax.swing package provides classes for java swing API such as JButton, JTextField, JTextArea, JRadioButton, JCheckbox, JMenu, JColorChooser etc. AWT provides less components than Swing. Whereas Swing provides more powerful components such as tables, lists, scroll panes, colorchooser, etc.

- Things that I learned and skills I gained doing this project:

1. I learned how to work With IDE such as visual studio, oracle and so on.

2. I learned in detail about java swing and java awt.
3. I learned about the use of object oriented programming in real world scenario.
4. I learned about the concept of class and object in detail.
5. I learned to design a proper GUI with the help of java.
6. I learned how to deal with collection apis.

In conclusion:

I was unable to change the logo of java at the top left .I would really like to learn how is its done. With this I would like to end my reflection not about my project. Thank you for your precious time respected sir.