

Practical - 7

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Section C
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In a department of a college, there can be maximum 50 employees, with Employee IDs ranging from "CS001" to "CS050". There are three departments in college having codes "CS", "IT" and "EC". Create a class Employee having data members ID and Name. Write getdata method to get data. Perform user defined exception handling to handle above constraints.

```
import java.util.Scanner;

class Employee
{
    String name, ID;
    Employee(String name, String ID)
    {
        this.name=name;
        this.ID=ID;
    }
    void Display()
    {
        System.out.println("Details Entered:");
        System.out.println("Name: "+name+"\nID: "+ID);
    }
}

class IDException extends Exception
{
    public IDException(String str)
    {
        System.out.println("You have entered "+str);
    }
}

public class MainRoll
{
    public static void main(String[] args)
    {
        Scanner s = new Scanner (System.in);
        System.out.println("Enter Name");
        String name = s.next();
        System.out.println("Enter ID");
        String ID = s.next();
    }
}
```

```

Employee E = new Employee(name,ID);
char ch[] = ID.toCharArray();
int n = ch.length;
try
{
    if((ch[0]=='C' && ch[1]=='S')||(ch[0]=='I' &&
ch[1]=='T')||(ch[0]=='E' && ch[1]=='C'))
    {
        if((ch[4]>=48 && ch[4]<=57)&&(ch[4]!=48 || ch[3]!=48))
        {
            if((ch[3]>=48 && ch[3]<=52)||(ch[3]==53 &&
ch[4]==48))
            {
                if(ch[2]==48)
                {
                    System.out.println("Valid ID\n");
                }
                else
                    throw new IDException("Invalid ID");
            }
            else
                throw new IDException("Invalid ID");
        }
        else
            throw new IDException("Invalid ID");
    }
    else
        throw new IDException("Invalid ID");
}
catch(IDException e)
{
    System.out.println("\nError 404/42069 (ShrenigXD) : \nInvalid
ID entered - "+e+"\n");
    System.out.println("ID's should start with CS, IT or EC \n&
End with 000 to 050\n");
}
E.Display();
}
}

```

Output 1: When Correct Inputs are given (No Error/Exception occurred)

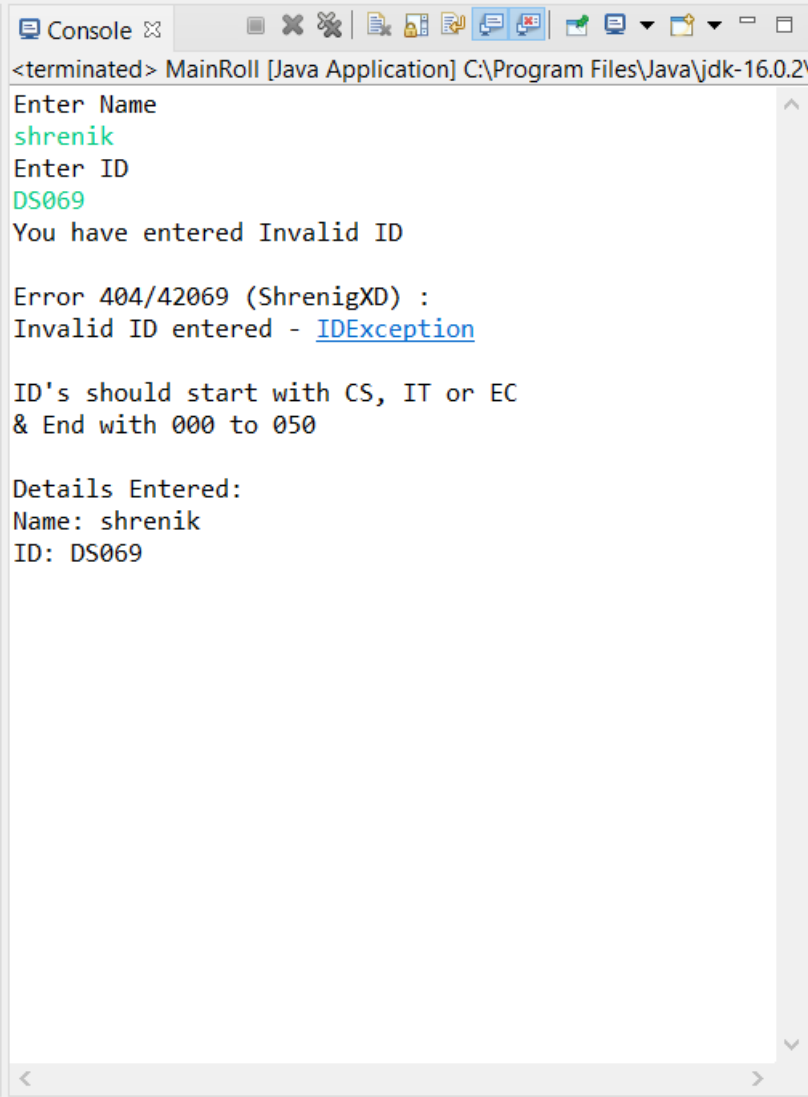


```
<terminated> MainRoll [Java Application] C:\Program Files\Java\jdk-16.0.2\bin\java.exe
Enter Name
shrenik
Enter ID
CS012
Valid ID

Details Entered:
Name: shrenik
ID: CS012
```

The screenshot shows a Java console window titled "Console". The window contains the following text: "<terminated> MainRoll [Java Application] C:\Program Files\Java\jdk-16.0.2\bin\java.exe". Below this, the program prompts "Enter Name" and "shrenik" is entered. Then it prompts "Enter ID" and "CS012" is entered. The program then outputs "Valid ID". Finally, it outputs "Details Entered:", "Name: shrenik", and "ID: CS012".

Output 2: When Incorrect Inputs are given (Error/Exception occurred)



```
<terminated> MainRoll [Java Application] C:\Program Files\Java\jdk-16.0.2\
Enter Name
shrenik
Enter ID
DS069
You have entered Invalid ID

Error 404/42069 (ShrenigXD) :
Invalid ID entered - IDException

ID's should start with CS, IT or EC
& End with 000 to 050

Details Entered:
Name: shrenik
ID: DS069
```

The screenshot shows a Java console window titled "Console" with a standard toolbar. The text inside the console window is as follows: The first line is a status bar message "<terminated> MainRoll [Java Application] C:\Program Files\Java\jdk-16.0.2\". The main text area contains the following lines: "Enter Name", "shrenik" (in green), "Enter ID", "DS069" (in green), "You have entered Invalid ID", an empty line, "Error 404/42069 (ShrenigXD) :", "Invalid ID entered - [IDException](#)" (where the link is blue and underlined), another empty line, "ID's should start with CS, IT or EC", "& End with 000 to 050", another empty line, "Details Entered:", "Name: shrenik", and "ID: DS069". The console window has a vertical scrollbar on the right and horizontal scrollbars at the bottom.

This practical was performed on Eclipse IDE

