

SBA-2

SWETHA ANDE

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1. Write a program to reverse the String(use char[] or String built in method)

```
public class Program1 {  
    public static void main(String[] args) {  
        String s = "This is a string statement";  
        StringBuilder s1 = new StringBuilder();  
        s1.append(s);  
        s1.reverse();  
        System.out.println(s1);  
    }  
}
```

OUTPUT:

```
1 //1. Write a program to reverse the String(use char[] or String built in method)
2 package SBA2;
3
4 public class Program1 {
5     public static void main(String[] args) {
6         String s = "This is a string statement";
7         StringBuilder s1 = new StringBuilder();
8         s1.append(s);
9         s1.reverse();
10        System.out.println(s1);
11    }
12 }
13
14 }
```

Terminal Problems Console Progress Servers

<terminated> SBA2a [Java Application] C:\Program Files\Java\jre1.8.0_241\bin\javaw.exe (30-Mar-2022, 11:07:59 am - 11:07:59 am)
tnemetats gnirts a si sihT

/2. Write programs to depict the usage of contains(),length(), replace(), concat(), equals()).

```
public class Program2 {

    public static void main(String[] args) {

        String s ="This is an String statement";

        String s1 = "Swetha";

        String s2 = new String("Swetha");

        System.out.println(s.length());

        System.out.println(s.contains(s2));

        System.out.println(s.replace('S', 's'));

        System.out.println(s.concat(s1));

        System.out.println(s1.equals(s2));

        System.out.println(s1==s2);

    }

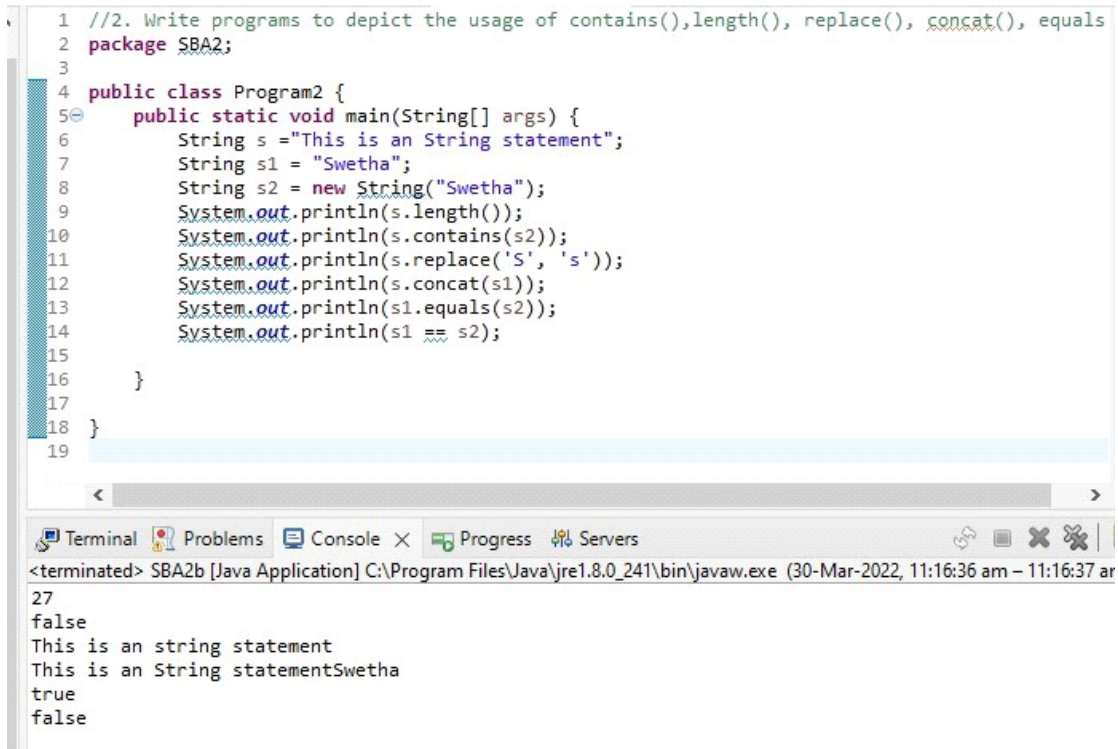
}
```

```

    }
}

```

OUTPUT:



```

1 //2. Write programs to depict the usage of contains(),length(), replace(), concat(), equals
2 package SBA2;
3
4 public class Program2 {
5     public static void main(String[] args) {
6         String s ="This is an String statement";
7         String s1 = "Swetha";
8         String s2 = new String("Swetha");
9         System.out.println(s.length());
10        System.out.println(s.contains(s2));
11        System.out.println(s.replace('S', 's'));
12        System.out.println(s.concat(s1));
13        System.out.println(s1.equals(s2));
14        System.out.println(s1 == s2);
15    }
16 }
17
18 }
19

```

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```

<terminated> SBA2b [Java Application] C:\Program Files\Java\jre1.8.0_241\bin\javaw.exe (30-Mar-2022, 11:16:36 am – 11:16:37 ar
27
false
This is an string statement
This is an String statementSwetha
true
false

```

3. Write a customized Exception class for a Banking project.

```

public class Program3 {

    public static void main(String[] args) {

        Account act = new Account();

        System.out.println("Current Balance: "+act.balance());

        System.out.println("Withdrawing $200");

        act.withdraw(200);

        System.out.println("Current balance: "+act.balance());

        act.withdraw(1000);

    }
}

```

```

}

class Account{

    private int balance=1000;


    public int balance() {

        return balance;

    }

    public void withdraw(int amount) throws NotSufficientFundException{

        if(amount >= balance) {

            throw new
NotSufficientFundException(String.format("Current balance %d is less than
requested amount %d ", balance, amount));

        }

        balance = balance - amount;

    }

    public void deposit(int amount) {

        if(amount <= 0) {

            throw new IllegalArgumentException(String.format("Invalid
deposit amount %s", amount ));

        }

    }

}

class NotSufficientFundException extends RuntimeException{

    private String message;

    public NotSufficientFundException(String message) {

        this.message=message;

    }

    public NotSufficientFundException(Throwable cause, String message) {

```

```

        super(cause);

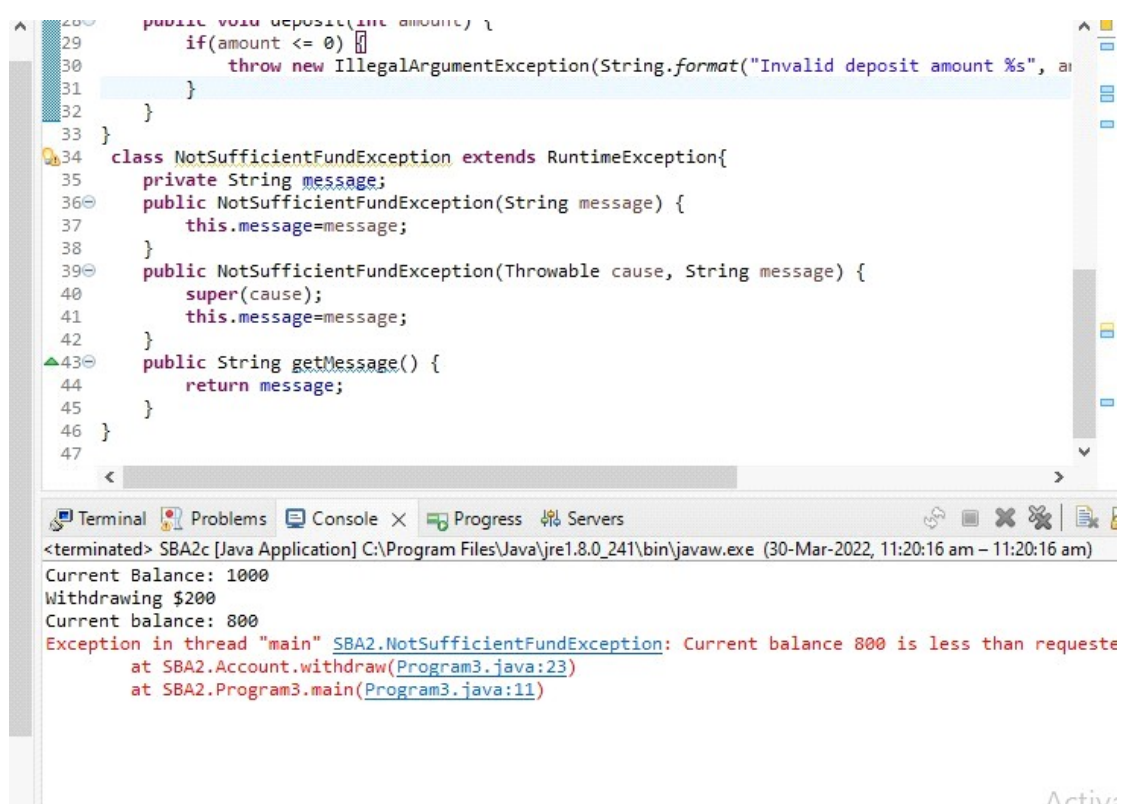
        this.message=message;
    }

    public String getMessage() {

        return message;
    }
}

```

OUTPUT:



The screenshot shows an IDE with a Java file open. The code defines a `NotSufficientFundException` class that extends `RuntimeException`. It has a private `message` field, a constructor that takes a `String` message, and a `getMessage()` method that returns the message. The output window shows the execution of a program that attempts to withdraw \$200 from an account with a current balance of 1000. Since the current balance (800) is less than the requested amount, a `NotSufficientFundException` is thrown, and the program terminates.

```

28 public void deposit(int amount) {
29     if(amount <= 0) {
30         throw new IllegalArgumentException(String.format("Invalid deposit amount %s", amount));
31     }
32 }
33
34 class NotSufficientFundException extends RuntimeException{
35     private String message;
36     public NotSufficientFundException(String message) {
37         this.message=message;
38     }
39     public NotSufficientFundException(Throwable cause, String message) {
40         super(cause);
41         this.message=message;
42     }
43     public String getMessage() {
44         return message;
45     }
46 }
47

```

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```

<terminated> SBA2c [Java Application] C:\Program Files\Java\jre1.8.0_241\bin\javaw.exe (30-Mar-2022, 11:20:16 am - 11:20:16 am)
Current Balance: 1000
Withdrawing $200
Current balance: 800
Exception in thread "main" SBA2.NotSufficientFundException: Current balance 800 is less than requested amount 200
    at SBA2.Account.withdraw(Program3.java:23)
    at SBA2.Program3.main(Program3.java:11)

```