School of Computer Science Engineering and Technology

Course- BTech
Course Code- **CSET**
Year- First
Type- Core
Course Name- **Object Oriented Programming Using Java**
Semester- Even Batch- BTech 2nd Semester

Tutorial-6

Tutorial No.	Name	CO1	CO2	CO3
1	**Basics**	✓	--	--

Objective: The main objective of this tutorial is to learn about the basics of Java language.

8.1 Identify error in the below code:

```
class Base extends Exception {}
class Derived extends Base {}

public class Main {
public static void main(String args[]) {
try {
        throw new Derived();
        }
        catch(Base b)   {
        System.out.println("Caught base class exception");
        }
        catch(Derived d) {
        System.out.println("Caught derived class exception");
        }
}
}
```

8.2 What will be the Output of the below code:

```
class Test
{
        public static void main (String[] args)
        {
                try
                {
                        int a = 0;
                        System.out.println ("a = " + a);
                        int b = 20 / a;
                        System.out.println ("b = " + b);
                }

                catch(ArithmeticException e)
                {
                        System.out.println ("Divide by zero error");
                }
```

```
		finally
		{
			System.out.println ("inside the finally block");
		}
	}
}
```

8.3. What will be the output of the following program?

```
class Test
{
	public static void main(String[] args)
	{
		try
		{
			int a[]= {1, 2, 3, 4};
			for (int i = 1; i <= 4; i++)
			{
				System.out.println ("a[" + i + "]=" + a[i] + "\n");
			}
		}

		catch (Exception e)
		{
			System.out.println ("error = " + e);
		}

		catch (ArrayIndexOutOfBoundsException e)
		{
			System.out.println ("ArrayIndexOutOfBoundsException");
		}
	}
}
```

8.4. What is the result of the following code?

```
class Test
{
	String str = "a";

	void A()
	{
		try
		{
			str +="b";
			B();
		}
		catch (Exception e)
		{
			str += "c";
```

```
		}
	}

	void B() throws Exception
	{
		try
		{
			str += "d";
			C();
		}
		catch(Exception e)
		{
			throw new Exception();
		}
		finally
		{
			str += "e";
		}

		str += "f";

	}

	void C() throws Exception
	{
		throw new Exception();
	}

	void display()
	{
		System.out.println(str);
	}

	public static void main(String[] args)
	{
		Test object = new Test();
		object.A();
		object.display();
	}

}
```

8.5 What is the output of following code?

```
public class Test
{
	public static void main(String[] args)
	{
		try
		{
```

```
                        System.out.printf("1");
                        int sum = 9 / 0;
                        System.out.printf("2");
                }
                catch(ArithmeticException e)
                {
                        System.out.printf("3");
                }
                catch(Exception e)
                {
                        System.out.printf("4");
                }
                finally
                {
                        System.out.printf("5");
                }
        }
}
```

8.6 What will be the output of following code?

```
public class Test
{
        private void m1()
        {
                m2();
                System.out.printf("1");
        }
        private void m2()
        {
                m3();
                System.out.printf("2");
        }
        private void m3()
        {
                System.out.printf("3");
                try
                {
                        int sum = 4/0;
                        System.out.printf("4");
                }
                catch(ArithmeticException e)
                {
                        System.out.printf("5");
                }


                System.out.printf("7");
        }
        public static void main(String[] args)
        {
```

```
                Test obj = new Test();
                obj.m1();
        }
}
```

8.7 What would be the result of the following code?

```
public class Test
{
        public static void main(String[] args)
        {
                try
                {
                        System.out.printf("1");
                        int data = 5 / 0;
                }
                catch(ArithmeticException e)
                {
                        System.out.printf("2");
                        System.exit(0);
                }
                finally
                {
                        System.out.printf("3");
                }
                System.out.printf("4");
        }
}
```

8.8 What will be the output of the following program?

```
public class Test
{
        private int data = 5;

        public int getData()
        {
                return this.data;
        }
        public int getData(int value)
        {
                return (data+1);
        }
        public int getData(int... value)
        {
                return (data+2);
        }

        public static void main(String[] args)
        {
```

```
		Test temp = new Test();
		System.out.println(temp.getData(7, 8, 12));
	}
}
```

8.9 What will be the Output of the below code:

```
public class Base
{
	private int multiplier(int data)
	{
		return data*5;
	}
}

class Derived extends Base
{
	private static int data;
	public Derived()
	{
		data = 25;
	}
	public static void main(String[] args)
	{
		Base temp = new Derived();
		System.out.println(temp.multiplier(data));
	}
}
```

8.10 What will be the Output of the below code:

```
package doubt;
import java.io.*;
class SuperClass {
void method()
{
System.out.println("SuperClass");
}
}
class SubClass extends SuperClass {
void method() throws ArithmeticException
{
System.out.println("SubClass");
}
}
public class Main{
public static void main(String args[])
{
SuperClass s = new SubClass();
s.method();
}
}
```

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