Assignment on Unit 3(Exception Handling), Unit 4 (AWT, Applet and JDBC) and Unit 5

(Networking and Multithreading in Java)

Note – for theory questions only hand written answers are accepted and for program

you can copy paste with output.

1. Explain try, catch, finally, throw and throws keyword in exception handling with the

help of java program.

TRY - The try block contains a set of statements where an exception can occur.

CATCH - catch block is used to handle uncertain conditions of try block. A catch block is follow

FINALLY - It is executed after catch block.

THROW - It is used to transfer control from try block to catch block

THROWS - It is used for exception handling without try and catch block. It shows exceptions that a method can throw to the caller and does not handle itself.

class Division

{

public static void main(String[] args)

{

int a = 10, b = 5, c = 5, result;

try

{

result = a / (b - c);

System.out.println("result" + result);

}

catch (ArithmeticException e)

{

System.out.println("Exception caught:Division by zero");

}

finally {

System.out.println("I am in final block");

}

}

}

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| // Java program to demonstrate working of throws  class ThrowsExecp  {  // This method throws an exception  // to be handled  // by caller or caller  // of caller and so on.  static void fun() throws IllegalAccessException  {  System.out.println("Inside fun(). ");  throw new IllegalAccessException("demo");  }    // This is a caller function  public static void main(String args[])  {  try {  fun();  }  catch (IllegalAccessException e) {  System.out.println("caught in main.");  }  }  } |
| --- |

2. List and explain various statement objects in Java with the help of code.

<https://javaconceptoftheday.com/statement-vs-preparedstatement-vs-callablestatement-in-java/>

<https://www.tutorialspoint.com/jdbc/jdbc-statements.htm>

3. Explain the delegation event model. Design a Java front end for a login page using

swing components and on clicking button check user is valid or not (username and

password = syit or SYIT then user is valid give the message as per validation and

allow user to enter user name and password 3 times if it is wrong. )

<https://www.tutorialspoint.com/awt/awt_event_handling.htm>

4. Explain life cycle of an applet. Illustrate common methods to create the applet.

<https://www.startertutorials.com/corejava/applet-life-cycle.html>

<https://www.instructables.com/id/How-to-Make-a-Java-Applet/>

5. What is multithreading in java? Explain the concept of thread life cycle with the help

of diagram.

<https://www.javatpoint.com/multithreading-in-java>

<https://www.javatpoint.com/life-cycle-of-a-thread>

6. Create a RMI application for checking whether a given number is prime or not.

<http://javatech4you.blogspot.com/2014/03/48-write-rmi-application-to-check.html>