Name: Chetana Adhikari

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HW 6

1. What is an exception?

An exception is an event, which occurs during the execution of a program, that disrupts the normal flow of the program's instructions.

2. What happens in a try block if the program executes without errors?

The code in the try block will run one after another to completion.

3. How does the catch mechanism work for unhandled exceptions?

If there is no handler that corresponds to the exception, the exception is said to be unhandled.

4. What happens in a program if an exception block fails to handle a particular error?

i) If the calling method uses a try block, the runtime will attempt to locate a matching catch handler for this try block and execute it.

ii) If the calling method

does not use a try block and there is no matching catch handler, the calling method will immediately exit and the execution will return to its caller, where the

process us repeated.

iii) If the catch handler is found the handler will run and the execution will continue with the first statement that follows the catch handler in the catching method.

iv) If the catch handler is not found then the program will terminate with an unhandled exception.

5. What is the parent class for all exceptions? How does this work?

Object is the parent class of all exceptions. After object class is the exception class. The Exception family includes a wide variety of exceptions, many of which are intended for use by various parts of the .NET framework. SystemException is a part of the wider family Exceptions. Under SystemException fall FormatException, OverflowException and a number of other exceptions.

7. What is the purpose of integer checking?

The fixed size of integer (32 bits) might create problems sometimes while performing mathematical calculations on it. For example: Integer can range from -2147483648 to 2147483647. If you try to add 1 to 2147483647, (if integer overflow checking is not turned on), C # by default will allow the calculation to overflow. It will wrap around to the largest negative integer value and will generate the result -2147483648, which will be wrong. There by to avoid such mistakes integer checking can be used.

8. What does the finally block do?

Finally block can be used to ensure that a statement is always run, whether or not an exception has been thrown. This can be done by writing the statement inside the finally block.