Custom Exceptions

Create custom exceptions in PHP that are tailor-made for your program.

WE'LL COVER THE FOLLOWING

- Defining Custom Exceptions
- Sample Code for Custom Exceptions

Defining Custom Exceptions

PHP provides the functionality to create custom exception handlers. It allows you to give separate exception block for each type of exception.

The class must be an **extension** of the built-in `Exception` class since it is the base class. The custom exception class *inherits* all the objects, properties and methods, from PHP's `Exception` class. You can also add custom objects to this new *extended* exception class.

Sample Code for Custom Exceptions

Following is the example of a custom exception class:

```
<?php
  class DecelerationException extends Exception{} //DecelerationException inherits Exception
  class TimeException extends Exception{} //TimeException inherits Exception

function acceleration($finalSpeed,$initialSpeed,$time){

  if($time <= 0){
    throw new TimeException('Time cannot be negative or zero.'); // Throw exception if time i
  }
  if($initialSpeed > $finalSpeed){
    throw new DecelerationException('It is deceleration.'); // Throw exception if initial spe
  }
  else{
    $a = ($finalSpeed-$initialSpeed)/$time;
    echo "($finalSpeed-$initialSpeed)/$time = $a";
  }
}
try{
```

```
try{
  acceleration(20,10, 2);
  acceleration(30,10, -4); //code will stop execution at this point and start finding the cat

  acceleration(15,20, 5); //$initialSpeed>$finalSpeed

  echo 'All calculations done!';// If an exception is thrown, this line will not execute
}

catch(DecelerationException $e){

  echo "\n". "Caught deceleration exception: " . $e->getMessage(); //Exception handling
}
catch(TimeException $e){

  echo "\n". "Caught time exception: " . $e->getMessage(); //Exception handling
}

echo "\n"."Hello World!"; // Continue execution
?>
```

Exchange positions of `line 20` and `line 21` to see which exception is caught now.

This was all about exception handling in PHP. Now you can handle run-time anomalies or abnormal conditions that a program encounters during its execution. Let’s solve a quick quiz in the next lesson.