



Waterford Institute of Technology



# PHP+MYSQL

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# PHP FOR DATABASE ACCESS

- Connect to the MySQL server
  - `$connection = mysqli_connect("host","username","password","DB");`
- Perform SQL operations
- Disconnect from the server
  - `mysqli_close($connection);`

# ERROR HANDLING

- All `mysql_` functions return NULL (or false) if they fail.
- Several functions are helpful in graceful failure
  - `die(string)` - halts and displays the string
  - `mysqli_connect_error()` - returns number of error

# ERROR HANDLING EXAMPLES

```
$conn=mysqli_connect("localhost","root","","db");  
if(!$conn){  
    die(mysqli_connect_error());  
}else {  
    echo "successfull";  
}
```

# BUILDING A QUERY

- Directly
  - `$query = 'select * from tablename';`
- Using input information
  - `$input = $_POST['var'];`
  - `$query = "select * from tablename where column=$input";`

## RUNNING A QUERY

- `mysql_query` returns a result handle

```
$result = mysqli_query($connection, $query)
```

- `mysql_num_rows` indicates the number of rows returned

```
$num_rows = mysqli_num_rows($result)
```

- `mysql_fetch_array` creates array/hash of result

```
For ($n=0; $n<$num_rows;$n++)
```

```
    $row = mysqli_fetch_array($result)
```

## RESULT OF FETCH\_ARRAY

- Contains both numeric and index tags
- Values are duplicated
- Example:
  - Query: select surname, city from customers;
  - Row: ( 0=>'Walker', 'surname'=>'Walker', 1=>'Kent', 'city'=>'Kent' );

## PRINTING THE COMPLETE ROW

- By number

```
for ($i=0; $i<mysqli_num_fields($result); $i++)  
    echo $row[$i] . " ";
```

- By field

```
echo $row['surname'] . ' ' . $row['city'];
```



# INSERTING INTO A DATABASE

- Collect data from a form
- Validate data (JavaScript, PHP or both)
- Create a query

```
$query = "insert into customer set cust_id = NULL, " . "surname =\" .  
    $surname . "\" ...
```

- Run the query

```
mysql_query($query, $db);
```