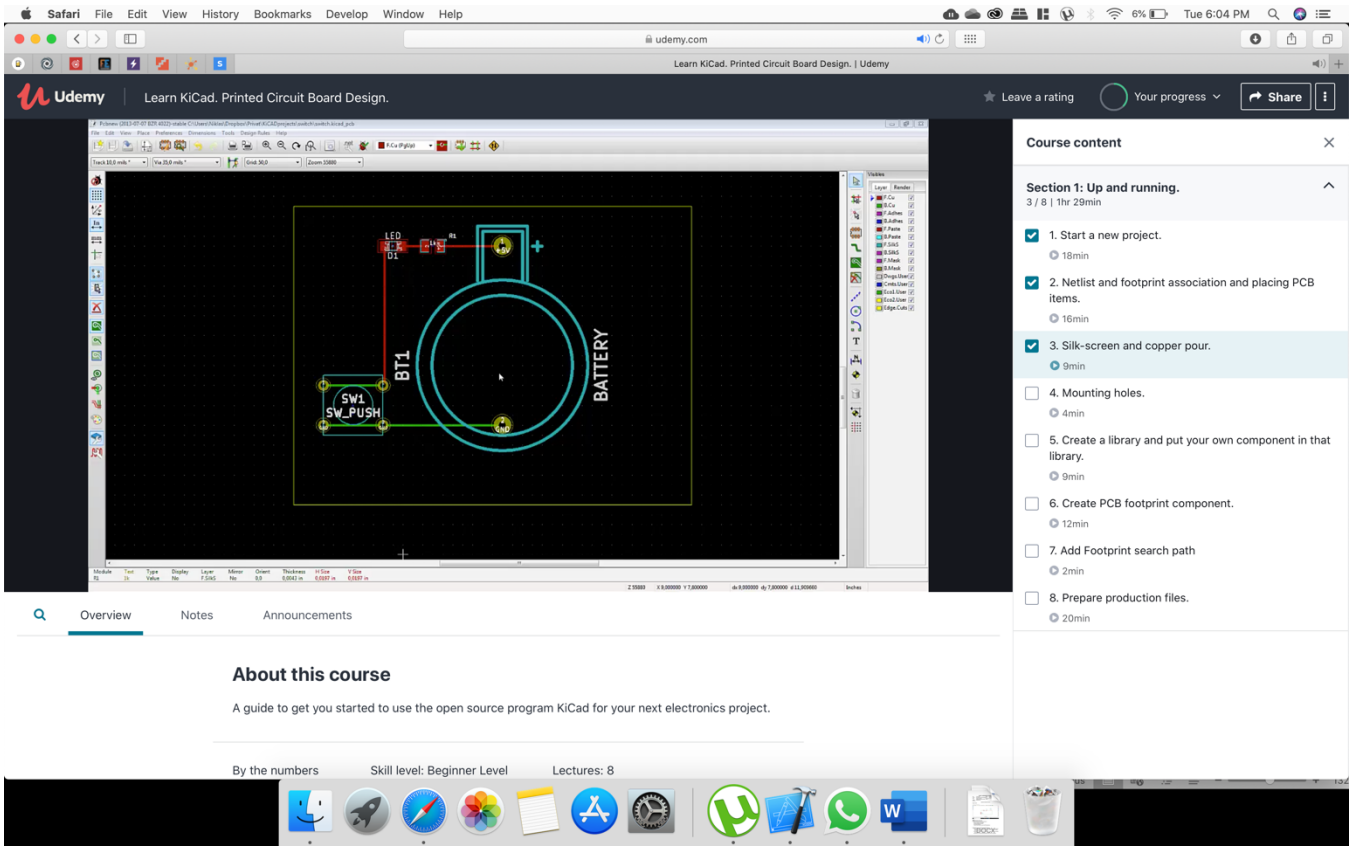
Daily Assessment

Date:	**09-06-2020**	**Name:**	**Prajwal Kamagethi Chakravarti P L**
Course:	**Ki cad printed circuit board design**	**USN:**	**4AL17EC073**
Topic:	**1.Start a new project 2.Netlist and footprint association**	**Semester &Section:**	**6th & B**
GitHub repository	**https://www.github.com/alvas-education-foundation/Prajwal-Kamagethi.git**		

AFTERNOON SESSION DETAILS

Image of session



Report –

- **The designing process**

1. **Designing a circuit board consists of four main parts:**

- **Draw the schematic (circuit diagram)**
- **Generate a netlist for the schematic**
- **Lay out the circuit board**
- **Generate Gerber files that are sent to the PCB manufacturer**

Drawing the Schematic and Generating the Netlist:

- **The schematic editor used to draw circuit diagrams in KiCad is called EESchema. Once the circuit diagram is drawn, a netlist is generated from it. This is done by simply clicking a button in EESchema.**
- **The netlist contains information on all the components in the schematic and the connections between components.**
- **The Netlist file is a file that contains information about the circuit, it's components, associated footprints, labels and pin numbers and many other things.**
- **Our PCBnew, which is the PCB editor, would read this file and load the appropriate footprints from the library and that will do the layout and wiring.**

Date:	**09-06-2020**	**Name:**	**Prajwal Kamagethi Chakravarti P L**
Course:	**MySQL**	**USN:**	**4AL17EC073**
Topic:	• **Outputting and processing data** • **Dealing with variables** • **Inserting and using database data**	**Semester &Section:**	**6th & B**
GitHub repository	**https://www.github.com/alvas-education-foundation/Prajwal-Kamagethi.git**		

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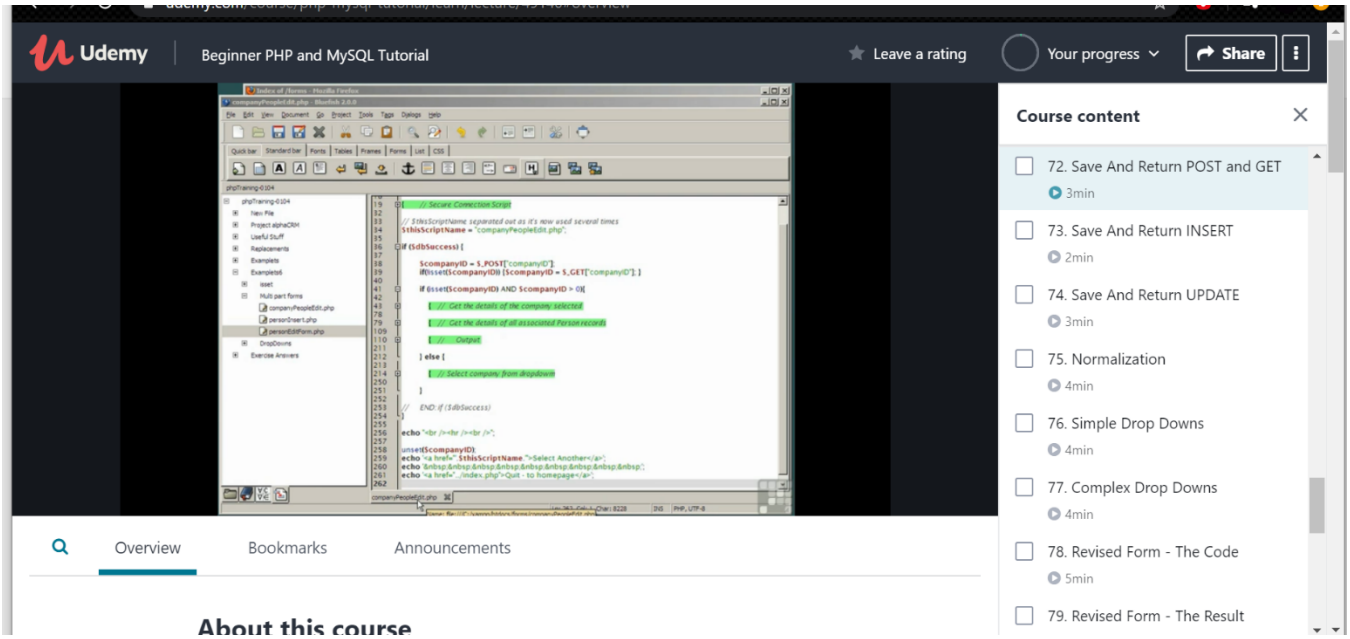

Report –

What is MySQL?

MySQL is a database system used for developing web-based software applications.

MySQL used for both small and large applications.

MySQL is a relational database management system *(RDBMS).*

MySQL is fast, reliable, and flexible and easy to use.

MySQL supports standard SQL *(Structured Query Language).*

MySQL is free to download and use.

MySQL was developed by Michael Widenius and David Axmark in 1994.

MySQL is presently developed, distributed, and supported by Oracle Corporation.

MySQL Written in C, C++.

A data processing system is a combination of machines, people, and processes that for a set of inputs produces a defined set of outputs. The inputs and outputs are interpreted as data, facts, information etc. depending on the interpreter's relation to the system.

A term commonly used synonymously with data processing system is information system. With regard particularly to electronic data processing, the corresponding concept is referred to as electronic data processing system.

A data processing system may involve some combination of:

- **Conversion converting data to another form or Language.**
- **Validation – Ensuring that supplied data is "clean, correct and useful."**
- **Sorting – "arranging items in some sequence and in different sets."**
- **Summarization – reducing detail data to its main points.**
- **Aggregation – combining multiple pieces of data.**
- **Analysis – the "collection, organization, analysis, interpretation and presentation of data.".**
- **Reporting – list detail or summary data or computed information.**

Dealing with variables:
MySQL variable assignment:

There are two ways to assign a value to a user-defined variable.

The first way is to use the SET statement as follows:

- **SET @variable_name: = value;**

You can use either: = or = as the assignment operator in the SET statement.

For example, the statement assigns number 100 to the variable @counter.

- **SET @counter: = 100**

The second way to assign a value to a variable is to use the SELECT statement. In this case, you must use the: = assignment operator because, within the SELECT statement, MySQL treats the = operator as the equal operator.

- **SELECT @variable_name: = value**

Inserting and using database data:

- **The INSERT INTO statement is used to add new data to a database.**
- **The INSERT INTO statement adds a new record to a table.**
- **INSERT INTO can contain values for some or all of its columns. INSERT INTO can be combined with a SELECT to insert records**

Here are some syntax rules to follow:

- **The SQL query must be quoted in PHP**
- **String values inside the SQL query must be quoted**
- **Numeric values must not be quoted**
- **The word NULL must not be quoted**

Example (MySQL Object-oriented)

```
<?php
$servername = "localhost";
$username = "username";
$password = "password";
$dbname = "myDB";

// Create connection
$conn = new mysqli($servername, $username, $password, $dbname);
// Check connection
if ($conn->connect_error) {
  die("Connection failed: " . $conn->connect_error);
}

$sql = "INSERT INTO MyGuests (firstname, lastname, email)
VALUES ('John', 'Doe', 'john@example.com')";

if ($conn->query($sql) === TRUE) {
  echo "New record created successfully";
} else {
  echo "Error: " . $sql. "<br>". $conn->error;
}

$conn->close ();
?>
```