DAILY ASSESSMENT FORMAT

Date:	11-06-2020	Name:	Jagadeesha Hegde
Course:	PCB design using Kicad	USN:	4AL17EC035
Topic:	Add footprint search path, prepare production files	Semester & Section:	6th A - sec
Github Repository:	Jagadeesha-036		

FORENOON SESSION DETAILS

Image of session
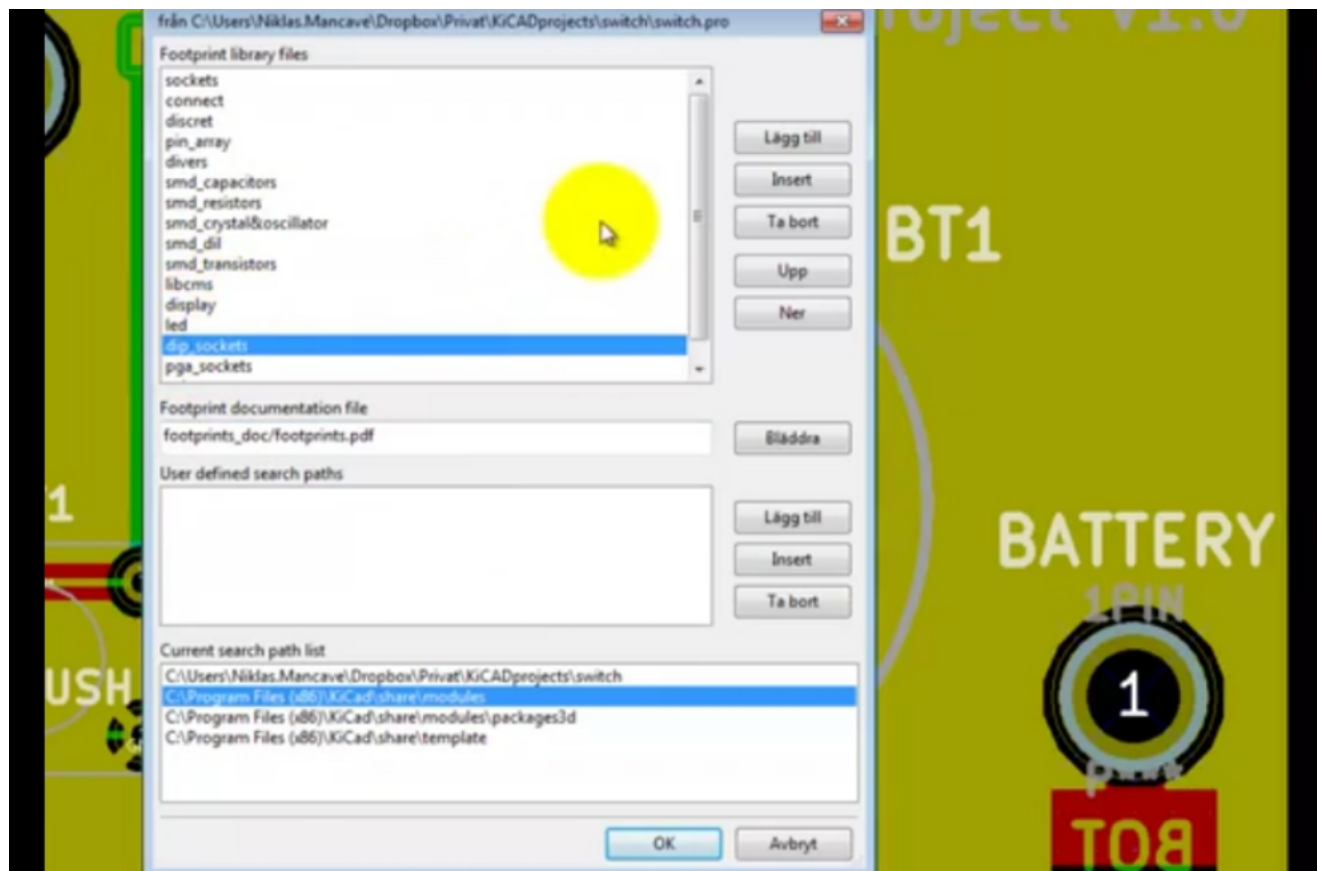
Add footprint search path:

When creating a custom PCB footprint for a component, it is stored somewhere on your computer. In order for Design Entry CIS to find where a custom footprint is stored and associate it with a schematic component, the *library search path* must be changed so that Design Entry CIS knows where to look. Save your custom footprints in the symbols folder on your computer. Depending on how Cadence is installed on your computer, the full path should be similar to:

C:\Program Files\Cadence\SPB_17.2\share\pcb\pcb_lib\symbols

When creating a new footprint drawing, the New Drawing dialog box will show the default pathLaunch Design Entry CIS. Note the full path for the Capture.ini file shown on the Start Page (see Figure 2). Depending on how Cadence is installed on your computer, the full

path should be similar to:C:\Cadence\SPB_Data-Silent\cdssetup\OrCAD_Capture\17.2.0\Capture.ini
or, if you made a custom HOME variable:
%HOME%\cdssetup\OrCAD_Capture\17.2.0\Capture.iniThe Capture.ini file will open in Notepad. Under the [Allegro Footprints] section, add the full library search path from step 1 above if it is not already listed (see Figure 4). Note that you must increment the number after Dir for each path added (e.g., Dir0, Dir1, Dir2). Do not delete any existing paths from the list. You have successfully added a library search path to Design Entry CIS. If you are still not able to attach your custom footprints to schematic symbols, re-check the above steps and make sure your custom footprint name is correct.

What is a Gerber file?

The most widely used file format for PCB manufacturing is called Gerber. When manufacturers request "Gerbers" or "Gerber files," they are referring to ASCII files that contain Gerber- formatted data. A Gerber file knows nothing about design rules, net connectivity, or component libraries; it is simply two-dimensional artwork that indicates where the manufacturing equipment will place copper, solder mask, or silkscreen. One Gerber file provides information for one PCB feature on one layer. Thus, if you have a two-layer board and each side has copper, solder mask, and silkscreen, you will need six Gerber files. You may also need a separate Gerber file to identify the board outline. Generating Gerber files can be somewhat complicated. The process involves various configuration details, and different manufacturers have different requirements. The following screen capture shows the options that you have to consider when generating Gerber files with DipTrac If you don't have much experience with Gerber generation, I suggest the following approach: First, choose a manufacturer that provides specific instructions on how to generate Gerber files with specific CAD tools. Second, use one of these CAD tools to design your board. If you follow the instructions carefully, you will almost certainly avoid the two potential consequences of improper. Gerber files: a delay in the manufacturing process (more likely), or a nonfunctional PCB (nowadays probably quite rare).

The drill file:

You will also need to generate a file that indicates the position and size of every hole that will be drilled through your board, i.e., both through-holes (for mounting components) and vias. This is called the NC (numeric control) drill file; you may also see "Excellon drill file" (which comes from Excellon Automation, a company that makes equipment used in PCB manufacturing). Again, the safest approach here is to follow specific instructions provided by a PCB manufacturer.

Project files vs. Manufacturing files:

If you'd prefer to avoid generating any type of manufacturing file, you can look for a PCB manufacturer that accepts your CAD software's project files. I assume that the manufacturer uses some sort of automated procedure to generate Gerbers from the project file; this is beneficial not only because it saves you time but also because the fab house technicians will (presumably) know exactly how to generate files that are compatible with their equipment. The list in the next section gives some information about one manufacturer that accepts project files.
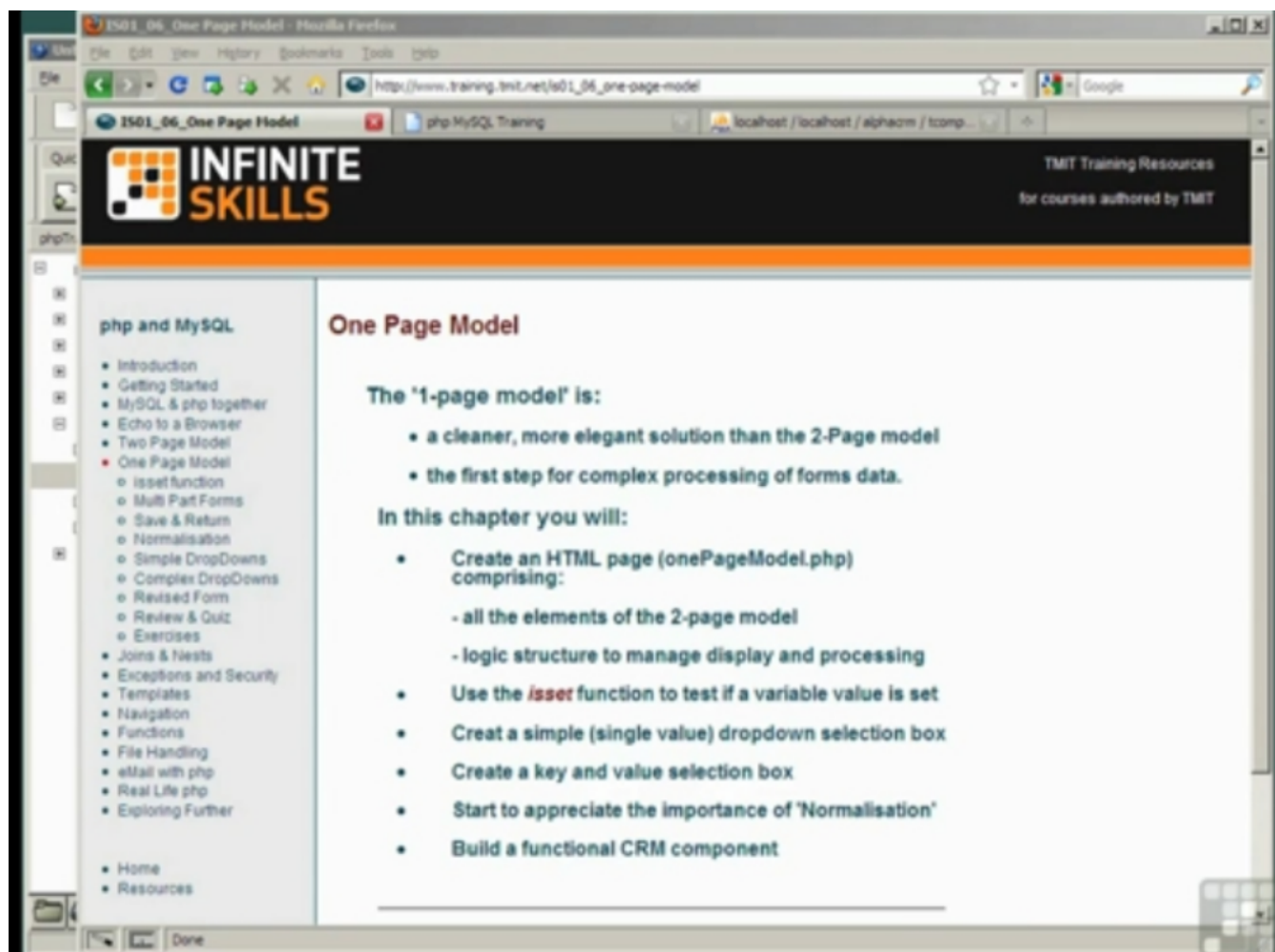
DAILY ASSESSMENT FORMAT

Date:	11-06-2020	Name:	Jagadeesha Hegde
Course:	MySql	USN:	4AL17EC036
Topic:	Insert data into MySQL. MySQL joins,inner join, right join,	Semester & Section:	6 th A-sec

	left join		
Github Repository:	Jagadeesha-036		

AFTERNOON SESSION DETAILS
Image of session

Insert Data Into MySQL :

After a database and a table have been created, we can start adding data in them.

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

The INSERT INTO statement is used to add new records to a MySQL table:

INSERT INTO table_name (column1, column2, column3,...)
VALUES (value1, value2, value3,...)

In this we created an empty table named "MyGuests" with five columns: "id", "firstname", "lastname", "email" and "reg_date". Now, let us fill the table with data.

The following examples add a new record to the "MyGuests" table

```php
<?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();
?>
```

MySQL Joins:

This MySQL tutorial explains how to use MySQL JOINS (inner and outer) with syntax, visual illustrations.

Description:

MySQL JOINS are used to retrieve data from multiple tables. A MySQL JOIN is performed whenever two or more tables are joined in a SQL statement.

There are different types of MySQL joins:

- MySQL INNER JOIN (or sometimes called simple join)

- MySQL LEFT OUTER JOIN (or sometimes called LEFT JOIN)

- MySQL RIGHT OUTER JOIN (or sometimes called RIGHT JOIN)

INNER JOIN (simple join)

Chances are, you've already written a statement that uses a MySQL INNER JOIN. It is the most common type of join. MySQL INNER JOINS return all rows from multiple tables where the join condition is met.

This MySQL INNER JOIN example would return all rows from the suppliers and orders tables where there is a matching supplier_id value in both the suppliers and orders tables.

Let's look at some data to explain how the INNER JOINS work:

We have a table called suppliers with two fields (supplier_id and supplier_name).

LEFT JOIN :

The LEFT JOIN keyword returns all records from the left table and the matched records from the right table (table2). The result is NULL from the right side, if there is no match.

LEFT JOIN Syntax

SELECT column_name(s)
FROM table1
LEFT JOIN table2
ON table1.column_name = table2.column_name;

RIGHT JOIN:

The RIGHT JOIN keyword returns all records from the right table, and the matched records from the left table .The result is NULL from the left side, when there is no match.

RIGHT JOIN Syntax

SELECT column_name(s)
FROM table1
RIGHT JOIN table2
ON table1.column_name = table2.column_name;