

DAILY ASSESSMENT FORMAT

Date:	10 th June 2020	Name:	Sushmitha R Naik
Course:	PCB design using Ki cad	USN:	4AL17EC090
Topic:	<ul style="list-style-type: none"> Silk screen and copper pour. Mounting holes. create a library. 	Semester & Section:	6 th sem 'B' sec
GitHub Repository:	Sushmitha_naik		

FORENOON SESSION DETAILS

Image of session

The screenshot shows a Udemy video player for a course titled 'Learn KiCad. Printed Circuit Board Design.' The video is at the 0:26 / 8:41 mark. The video content displays a KiCad PCB layout with components labeled R1, N-000003, and 1. The video player interface includes a progress bar, a search bar, and a course content sidebar on the right.

Course content

- ☒ 2. Netlist and footprint association and placing PCB items. 16min
- ☒ 3. Silk-screen and copper pour. 9min
- ☒ 4. Mounting holes. 4min
- ☒ 5. Create a library and put your own component in that library. 9min
- ☐ 6. Create PCB footprint component. 12min
- ☐ 7. Add Footprint search path 2min
- ☐ 8. Prepare production files. 20min

The screenshot shows a Udemy video player for a course titled 'Learn KiCad. Printed Circuit Board Design.' The video is at the 0:11 / 3:31 mark. The video content displays a KiCad PCB layout with components labeled LED, D1, R1, BT1, BATTERY, SW1, SW_PUSH, and GND. The video player interface includes a progress bar, a search bar, and a course content sidebar on the right.

Course content

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Silk screen and copper pour:

- The silkscreen is to define the outline of the component including any package and placement tolerances.
- It is also to illustrate the outline so that components can be placed far enough apart to allow for access for rework.
- It is therefore not good practice to place components where the silkscreen will overlap the edges of the board because this may result in the component itself overhanging or at least being too close the board edge.
- There is also usually a minimum spacing required between the physical edges of the PCB and the edges of any copper tracks and planes so placing components too close to the PCB edge may violate the minimum copper to edge spacing.
- Some library parts have badly designed silkscreen that makes overlapping the PCB edge unavoidable but they should be reported as errors and redrawn with the overhanging parts on the Document or possibly the Mechanical layer.

Mounting holes:

- Mounting holes are on every PCB design, but there is very little documentation about this subject matter. A Google or Wikipedia search on “Mounting Holes” renders no solutions to the PCB designer.
- Another issue that interferes with standardization is Imperial Unit ASNI hardware and ISO Metric hardware. So we’re going to have to explain both unit systems for clarity. But first let’s start with the basic fundamentals that both unit systems have in common.
- The supported mounting hole usually gets tied to the GND plane without a Thermal Relief (a direct connection is best) and the supported hole w/vias gets both the main hole and the vias tied to the GND plane.
- Due to the fact that mounting hardware never gets soldered to the PCB, there is no reason for a Thermal Relief pattern and you connect all holes (including vias) directly to the plane. The unsupported (non-plated) hole has no connection to a GND plane layer and they require an outer layer keep-out defined that compensates for the hardware tolerances.
- There are two primary reasons for adding vias to the supported mounting hole. The first was to insure that if the screw threads stripped the copper plating from the main hole that the vias would still provide adequate ground connections.

- The second reason was for additional support to prevent the PCB from crushing when too much torque was used to tighten the nut. The average via hole size for mounting holes is 0.5 mm. See Figure 3 for a supported mounting hole with vias.

Create a library:

- The library name should be unique within the chosen library table. It should also communicate what footprints to expect within it to your target audience. Do not include special chars inside your library name as it might create problems in some platforms. This means the most shareable name will only contain letters, numbers, underline and minus. (This is only a suggestion.
- Add additional chars at your own risk. After creating the library, you will need to add the library to the global or project library table.
- Adding it to the global table will make this lib visible to all your projects. The project (also known as local) library table only adds it to the current project.

DAILY ASSESSMENT FORMAT

Date:	10 th June 2020	Name:	Sushmitha R Naik
Course:	MySQL	USN:	4AL17EC090
Topic:	<ul style="list-style-type: none"> My SQL JOINS PHP Errors and Security Building A Template Page 	Semester & Section:	6 th sem 'B' sec
GitHub Repository:	Sushmitha_naik		

AFTERNOON SESSION DETAILS

Image of session

The screenshot shows the Udemy course page for 'Beginner PHP and MySQL Tutorial'. The main content area displays the 'Joins & Nests' chapter, which includes a list of topics and a description of the chapter's goals. The course content list on the right shows the following items:

- 81. MySQL Join Types - Examples (6min)
- 82. MySQL Join Diagrams (2min)
- 83. Creating Nested Lists (5min)
- 84. MySQL Nested Processing (4min)
- 85. Styling Our Lists (5min)
- 86. Intro To Functions (8min)
- 87. Included Files (8min)

The section is titled 'Section 8: PHP Errors And'.

The screenshot shows the Udemy course page for 'Beginner PHP and MySQL Tutorial'. The main content area displays the 'Security and Errors' chapter, which includes a list of topics and a description of the chapter's goals. The course content list on the right shows the following items:

- 88. Introduction To Security And Errors (1min)
- 89. Error Types - Databases (8min)
- 90. PHP Error Types (7min)
- 91. Custom Error Testing (3min)
- 92. Create A Login Page (8min)
- 93. Passwords For Login (3min)
- 94. Protecting Pages (9min)

The section is titled 'Section 8: PHP Errors And'.

Report:

My sql joins:

- A relational database consists of multiple related tables linking together using common columns which are known as foreign key columns. Because of this, data in each table is incomplete from the business perspective.
- A join is a method of linking data between one (self-join) or more tables based on values of the common column between the tables.

MySQL supports the following types of joins:

1. Inner join
2. Left join
3. Right join
4. Cross join

To join tables, you use the cross join, inner join, left join, or right join clause for the corresponding type of join. The join clause is used in the SELECT statement appeared after the FROM clause.

Php errors and security:

- A PHP application might produce many different levels of warning and errors during its execution. Being able to see these errors is essential for developers trying to troubleshoot a misbehaving application.
- However, developers often have trouble when trying to display errors from their PHP applications. Instead, their apps just fail silently.
- If adding some of the PHP code errors doesn't show in the browser during testing, then the PHP ini configuration has some additional directives to handle this.
DISPLAY_ERROR=ON
- The display_errors directive must be set to "on" in the PHP ini file. This will display all the errors including syntax or parse errors that cannot be displayed by just calling the ini_set function in the PHP code.
- The PHP ini file can be found in the displayed output of phpinfo () function and is labelled loaded configuration file. This directive in the ini configuration must be set to off, if the web application is in production.

Building a template page:

- The standard template is usually the aptly named *page.php*. Unless there is a more specific template file available WordPress will use *page.php* to render the content of all pages on your website.
- However, in many cases it might be necessary to change the design, look, feel or functionality of individual parts of your website. This is where page templates come into play. Customized page templates allow you to individualize any part of your WordPress site without affecting the rest of it.

- You might have already seen this at work. For example, many WordPress themes today come with an option to change your page to full width, add a second sidebar or switch the sidebar's location. If that is the case for yours, it was probably done through template files. There are several ways to accomplish this and we'll go over them later.
- First, however, a word of caution: since working with templates involves editing and changing files in your active theme, it's always a good idea to go with a child theme when making these kinds of customizations. That way you don't run the danger of having your changes overwritten when your parent theme gets updated.

[illegible]

