**DAILY ASSESSMENT FORMAT**

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| **Date:** | **09/06/2020** | **Name:** | **SHILPA C** |
| **Course:** | **PCB design using kicad** | **USN:** | **4AL17EC086** |
| **Topic:** | **Start a new project, netlist& footprint association &placing,silk-screen & copper-pour** | **Semester & Section:** | **6th Bsec** |
| **Github Repository:** | **shilpa-c** |  |  |

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| **FORENOON SESSION DETAILS** |
| **Image of session** |
| **Report – Report can be typed or hand written for up to two pages.**   * **What is Kicad ?KiCadisafreesoftwaresuiteforelectronicdesignautomation.ItfacilitatesthedesignofschematicsforelectroniccircuitsandtheirconversiontoPCBdesigns.KiCadwasoriginallydevelopedbyJean-PierreCharras.Itfeaturesanintegratedenvironmentforschematiccaptureand PCB layout design.** * **ItfacilitatesthedesignofschematicsforelectroniccircuitsandtheirconversiontoPCBdesigns.KiCadwasoriginallydevelopedbyJean-PierreCharras.Itfeaturesanintegratedenvironmentforschematic capture and PCB layout design**   **FOOTPRINTS PLACEMENT**   * **Our project is now at the stage where the two footprints that compose our PCB are spread out in the Pcbnew canvas. In this chapter we will do the footprint placement so that we can start giving shape tothe final PCB.I would like to place the connector on the right side of the breakout and the nRF24 component on the left side. To so this, position the cursor over the nRF24 footprint and hit the ‘M’ key. This will allow you to move this footprint. Move it so that it is on the left side of the straight connector.The nRF24 footprint is on the left side of the connector. Notice the rattiest lines. They indicate the pads that should be wired together.The thin white lines that connect the pads together are called “ratsnests” . They are routing guides. As we wire each pair of pads together, the corresponding ratsnest will disappear.One thing to consider when you are placing your components onto your PCB is space. How much space is your final PCB going to take up? Remember that PCB manufacturers,will charge you not based on have many holes and tracks your PCB has but based on its dimensions. Therefore, the smaller your PCB is, the cheaper it will be to make** * **However, the smaller the PCB is, the harder can be to route it. With less space in between footprints, the routing of tracks will be more difficult. This is not a problem for the simple PCB of this example, however if you had more footprints, then placing them to close to each other would make routing andthen soldering harder. You must think about this and find a dimension that works both from a cost point of view and from these other technical considerations like the soldering and the routing point ofview**   **Silkscreen and copper pour**   * **Unfortunately, when part outlines and text are drawn on the copper layer, they are electrically conductive. You can’t put traces or parts in the same places, as the copper text would interfere and change the circuit.In your layout program, you can place text and part outlines on the silkscreen layer instead of copper. For example, in Copper Connection simply choose the silkscreen layer before placing text, or select the existing text and switch the layer to silkscreen.Copper Connection includes a bulk selection feature for your convenience. If you have already made a board with text on a copperlayer, you don’t have to move each text element one at a time. Instead, right click on any copper-layertext, choose “Select All Text on this Layer”, and then choose the new layer (top or bottom silkscreen).Now, when you order the boards from your favorite manufacturer, be sure to choose one of their manufacturing options that includes silkscreen. For prototype runs, silkscreen is usually restricted to the top side of the board, but some manufacturers offer both sides.** |

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| **Date:** | **09/06/2020** | **Name:** | **SHILPA C** |
| **Course:** | **Mysql** | **USN:** | **4AL17EC086** |
| **Topic:** | **1. Outputting and processing data**  **2. Dealing with variables**  **3. Inserting and using database data** | **Semester & Section:** | **6th Bsec** |
| **AFTERNOON SESSION DETAILS** | | | |
| **Image of session** | | | |
| **Report – Report can be typed or hand written for up to two pages.**  Database Structure  MySQL is a Relational Database Management System (RDBMS). Your MySQL server can manage many databases at the same time. In fact, many people might have different databases managed by a single MySQL server. Each database consists of a structure to hold the data and the data itself.data in a database is stored in one or more tables. You must create the database and the tables before youcan add any data to the database. First you create the empty database. Then you add empty tables to the database.Database tables are organized like other tables that you’re used to — in rows and columns. Each row represents an entity in the database, such as a customer, a book, or a project. Each column contains an item of information about the entity, such as a customer name, a book name, or a project start date. The place where a particular row and column intersect, the individual cell of the table, is called afield  Inserting a data in mysql  To insert data into a MySQL table, you would need to use the SQLINSERT INTOcommand. You caninsert data into the MySQL table by using the mysql> prompt or by using any script like PHP.  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 ();  ?> | | | |