Today was my seventh day in internship. I am very exited about learning many new concepts today. Day started by recalling the concepts taken yesterday. We learnt that the bridge problem has no solution. The mathematical concept behind it was Eulerian cycle. An Eulerian Cycle is a path in a graph that starts and ends at the vertex while traversing each edge of the graph exactly once. Every vertex should have even number of vertex. There is an another example Hamiltonian cycle, that gives us more understanding about the concept better. I understand that there is always a mathematical representation for every problem.

Different classes of problem:

1. Problems that have no solution
2. Problems that have multiple solution
3. Problems that have lots of trial and error

Bridge problem is the example for problem that have no solution. Hamiltonian cycle gives us a clear understanding that a problem can have multiple number of solution. Trial and error requires more number of time taken. Only solution is to solve more problem to become good problem solver.

Then learned about computing, the act of calculating. The input is given it takes to our memory and we process it and tell the output. In similar way the input in given to the computer, it takes the input to the CPU the memory and process it and gives us the output. The computer understand the language in O’s and 1’s. How all these things are happening is by giving the electric pulse, for zero is 0v and for one is 5v.

Then I met my mentor, he asked about the concept that we discussed the day before. Also asked to take a simple pseudo code and tell how the concepts behind it was happening. I took the library management concept and took a borrowed books component and learned how it runs and explained it to him. Then he gave me a little task in that. The due days to return the book was 15days and the fine amount per was 25rs. I tried to solve the problem. I don’t know how to calculate the number of days. I asked him how to calculate the number of days by having the two dates. Then he told about a Math.floor function that helps to covert it into days. Then By using it I solved the code.

Then he asked me to learn and come about array concepts map(), filter(), reduce(). The map() function is an array method that creates a new array by applying a callback function to each element of the given array. The filter() function is an array method that creates a new array with only the elements that pass a given condition. The reduce() function in JavaScript is an array method used to reduce the array into a single value. The reduce methods can be used to count totals, sum up numbers etc. The difference between for- and map is the map() return a new array while for- each return a each value not an array.

Then I installed angular application in my system. I faced issues while installing, I researched it and installed it. Then he give a short story about how the angular is working, it works based on components. Then he showed where the HTML components and CSS components to write. Then he give me a task to do it in angular. He asked me to research it and if there is any doubt come and clear it out. I have no idea how to write using typescript. There is a difference between Java script and Typescript. I did some research and I tried to solve it. The task is to create a box and three button as green, red, blue. Once I click the button the box colour should change.

I learned about many concept. [ngStyle] is an angular directive that applies CSS styles to HTML. Event Binding is to handle the functions like click, key presses , click. TypeScript variable is used to store data values like numbers, strings, objects, or arrays.

State management means storing, managing, and sharing data across different components. Instead of taking the data for every components separated, it has a centralized location called State store. Components can access specific parts of the state in the store by using selector functions.