**Data Structures and Algorithms [23ECSC205]**

**Course Project – Phase I**

**Functionality Identification**

| Problem Title: **Pharmacy Management** | | | | |
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| **SI. No.** | **Functionality Identified** | **Description** | **Owner** | **Probable Tools** |
| 1 | Optimized route to reach a  Medical shop | Plan the most efficient route for the user to reach the shop | Prateek | Dijkstra’s Algorithm |
| 2 | Optimized route to reach multiple shops by user | Plan the efficient route for the user to cover all shops | Swadeep | Dijkstra’s Algorithm |
| 3 | User information storage | Store users info/details | Rahul | Arrays or linked list |
| 4 | Shops information storage | Store shops details | Ganesh | Arrays or linked list |
| 5 | Display optimised route to reach location of user from a shop | Shortest route for the delivery boy to reach users location | Prateek | Dijkstra’s Algorithm |
| 6 | Display optimised route to reach location of user from Multiple shops | Shortest route for the delivery boy to reach users location | Swadeep | Dijkstra’s Algorithm |
| 7 | Promotions and Discounts | Apply promotions and discounts to ticket prices | Rahul | Hash Table |
| 8 | Search for medicines in the shop | Search for medicines by name or code | Ganesh | String matching Algorithm |

| 9 | Sort products of the shop | Sort products by its name or code | Prateek | Quick sort |
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| 10 | Shortest path to reach the Hospital from user’s location | Plan the efficient way to reach Hospital | Swadeep | Dijkstra’s Algorithm |
| 11 | User Feedback and Rating | Collect and analyse user feedback and ratings | Rahul | Data Structures for Feedback Storage |
| 12 | Store the purchased products details | Storing purchased product details | Ganesh | Arrays ,Linked list,  Queues |