Steps to Complete the Software Engineering Laboratory:

Step-1: Decide the single project for each and every student, with work breakdown structure (WBS), specific application, functions, cost and timeline using (Gant Chart).

Step -2: Needs to define the functional and non-functional requirements.

Step-3: Decide the suitable process model with justification for their project.

Step-4: Define the structural modeling using Entity-Relationship diagram.

Step-5: Describe the functional modeling using Context Flow Diagram and Data Flow Diagram.

Step-6: Define the behavioral modeling using State Transition Diagram.

Step-7: Describe the Object Oriented Design through use-case model, class model, interaction models as well as package component and deployment models. Using following

Structure Diagrams
   i. Class Diagram
   ii. Component Diagram
   iii. Deployment Diagram
   iv. Object Diagram
   v. Package Diagram

Behavioral Diagrams
   vi. Use Case Diagram
   vii. Activity Diagram
   viii. State Machine Diagram
   ix. Sequence Diagram
   x. Communication Diagram

Step-8: After completion of the all above steps design a test case for the functional and non-functional testing.

Step-9: Define the user interface design model.

Step-10: Study, analyze, rectify each and every step and bind it as a single project.

Software Available:

1. Rational ROSE:

https://www.ibm.com/support/pages/ibm-rational-rose-enterprise-7004-ifix001

2. StarUML:

https://staruml.io/

3. Edraw

https://www.edrawsoft.com/ad/edrawmax-diagram-tool.html?gad_source=1&gclid=EAIaIQobChMIo-SEru2agwMVzy2DAx2MOgMMEAAYASAAEgIDf_D_BwE

4. Lucid-Chart

https://www.lucidchart.com/pages/

https://www.lucidchart.com/pages/landing?utm_source=google&utm_medium=cpc&utm_campaign=_chart_en_tier3_mixed_search_brand_exact_&km_CPC_CampaignId=1484560207&km_CPC_AdGroupID=60168114191&km_CPC_Keyword=lucid%20chart&km_CPC_MatchType=e&km_CPC_ExtensionID=&km_CPC_Network=g&km_CPC_AdPosition=&km_CPC_Creative=442433234360&km_CPC_TargetID=kwd-55720648523&km_CPC_Country=9302648&km_CPC_Device=c&km_CPC_placement=&km_CPC_target=&gad_source=1&gclid=EAIaIQobChMIhLOS3e2agwMV46hmAh2ETA6hEAAYASAAEgJFEvD_BwE

5. ArgoUML

https://argouml.en.softonic.com/

6. Visual Paradigm

https://www.visual-paradigm.com/

7.Umbrello

 https://apps.kde.org/umbrello/

Task: To be complete on or before 11 January 2024

1. Decide the project with concise title and detail.

2. Identify the suitable process model for the project.

3. Choose the compatible software