

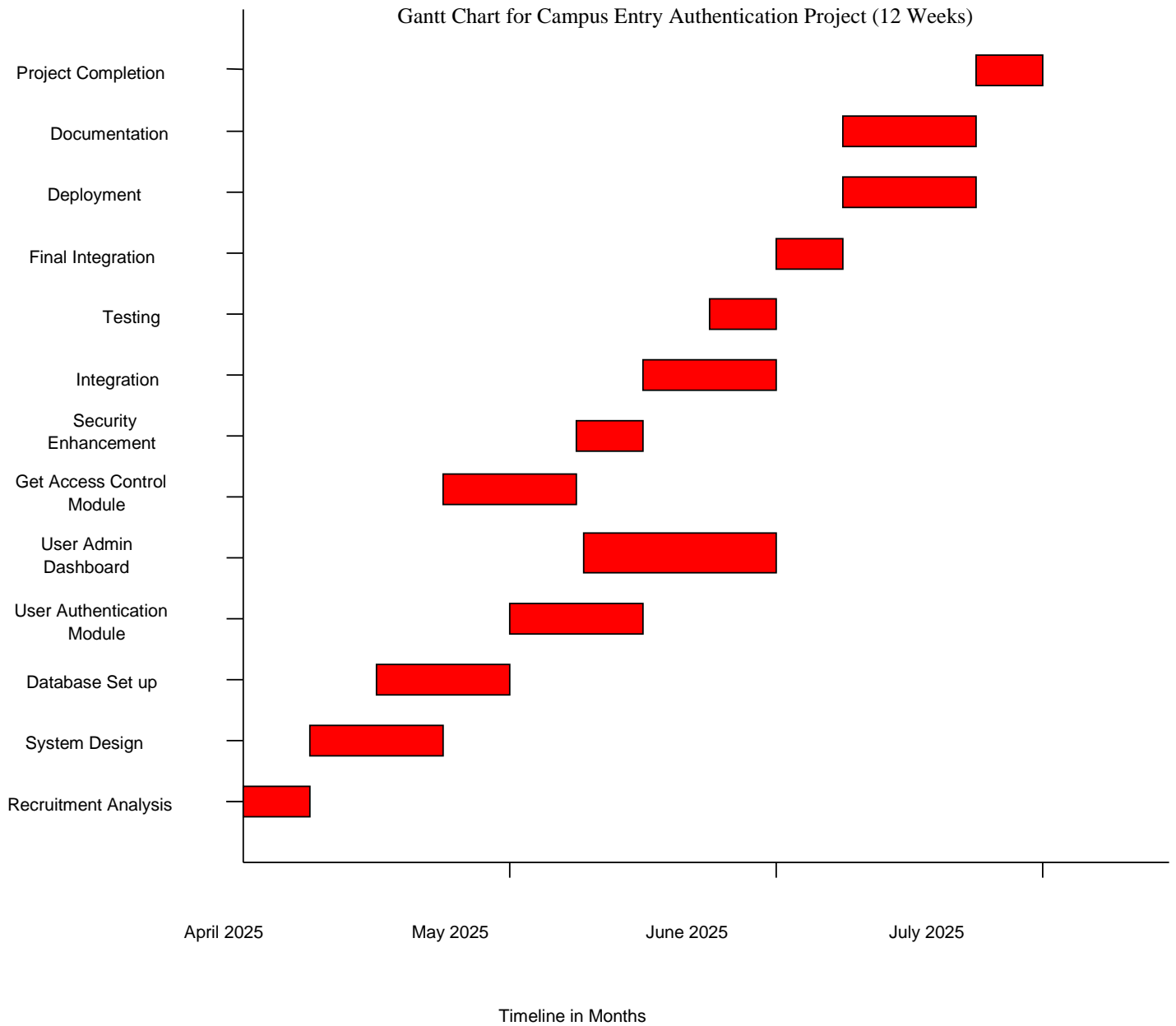
**UNIVERSITY OF ESWATINI**  
**DEPARTMENT OF COMPUTER SCIENCE**  
**CSC 392**  
**TASK 2**

**Names**

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## Exercise 1 Note 08

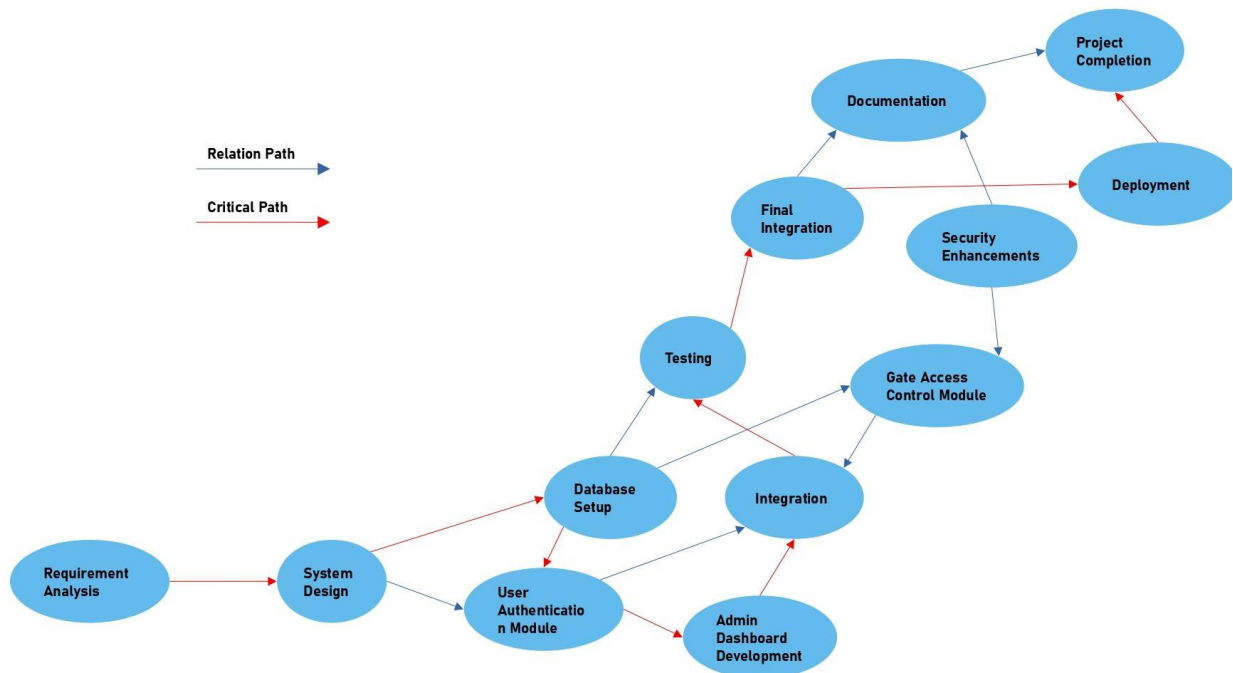
(a)



**Project Schedule**

Activity	Description	Predecessors	Duration (weeks)
A1	Requirement Analysis	None	1
A2	System Design	A1	2
A3	Database Setup	A2	2
A4	User Authentication Module	A2, A3	3
A5	Admin Dashboard Development	A4	2
A6	Gate Access Control Module	A3	2
A7	Security Enhancements	A6	1
A8	Integration	A4, A5, A6	2
A9	Testing	A8	1
A10	Final Integration	A9	1
A11	Deployment	A10	2
A12	Documentation	A7, A10	2
A13	Project Completion	A11, A12	1

b)



c) Our project timeline is only 12 weeks this will be our quickest completion time

d) Critical Path (Longest Sequence of Dependent Tasks):

A1 → A2 → A3 → A4 → A5 → A8 → A9 → A10 → A11 → A13

Total Duration: 15 weeks

Our project timeline is only 12 weeks, the critical path suggests that the current schedule exceeds the available time. We may need to:

- Parallelize some tasks to reduce dependencies.
- Reduce task durations by allocating more resources.
- Identify non-critical tasks that can be adjusted.

e) If task A8 was delayed by 2 weeks it was going to have a ripple effect on subsequent task and overall project timeline. For example, completion will then start after week 12, in essence a delay of task A8 by 2 weeks would mean the project takes longer to complete by another 2 weeks.