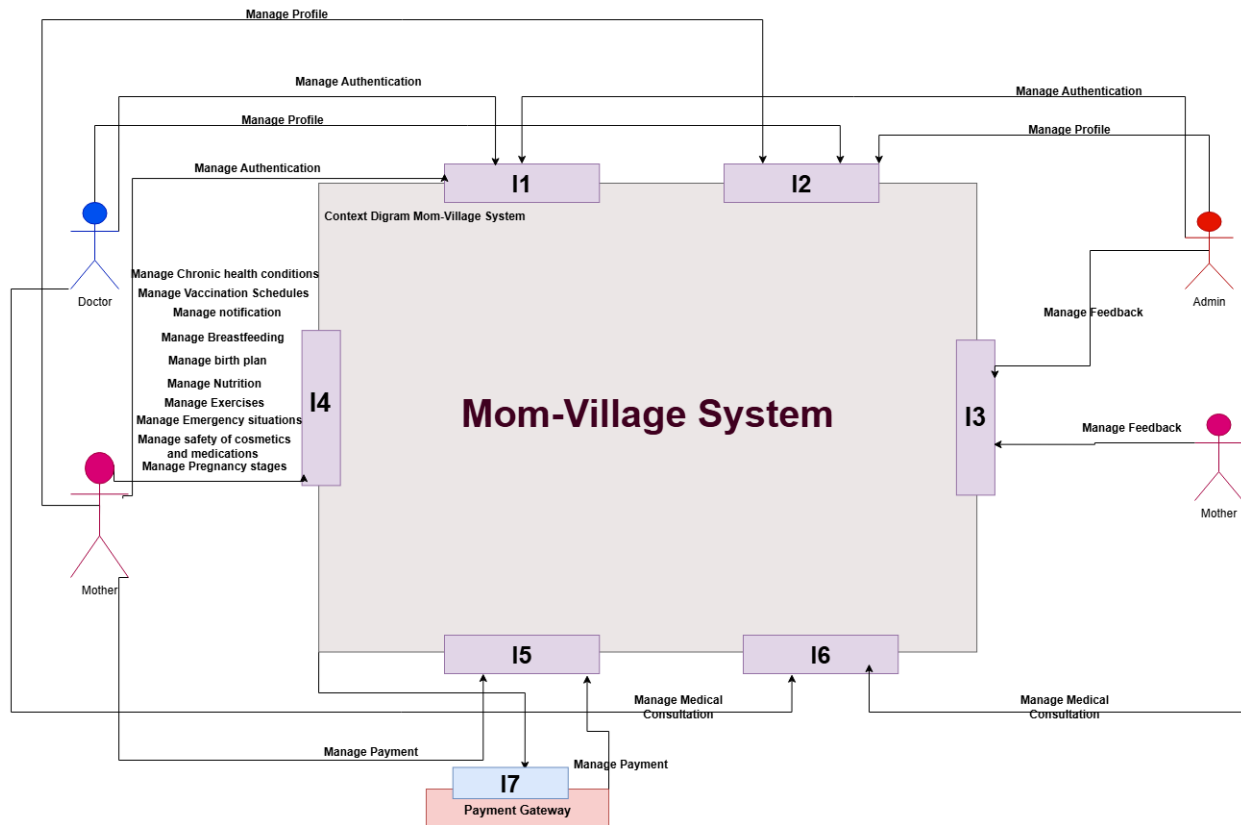
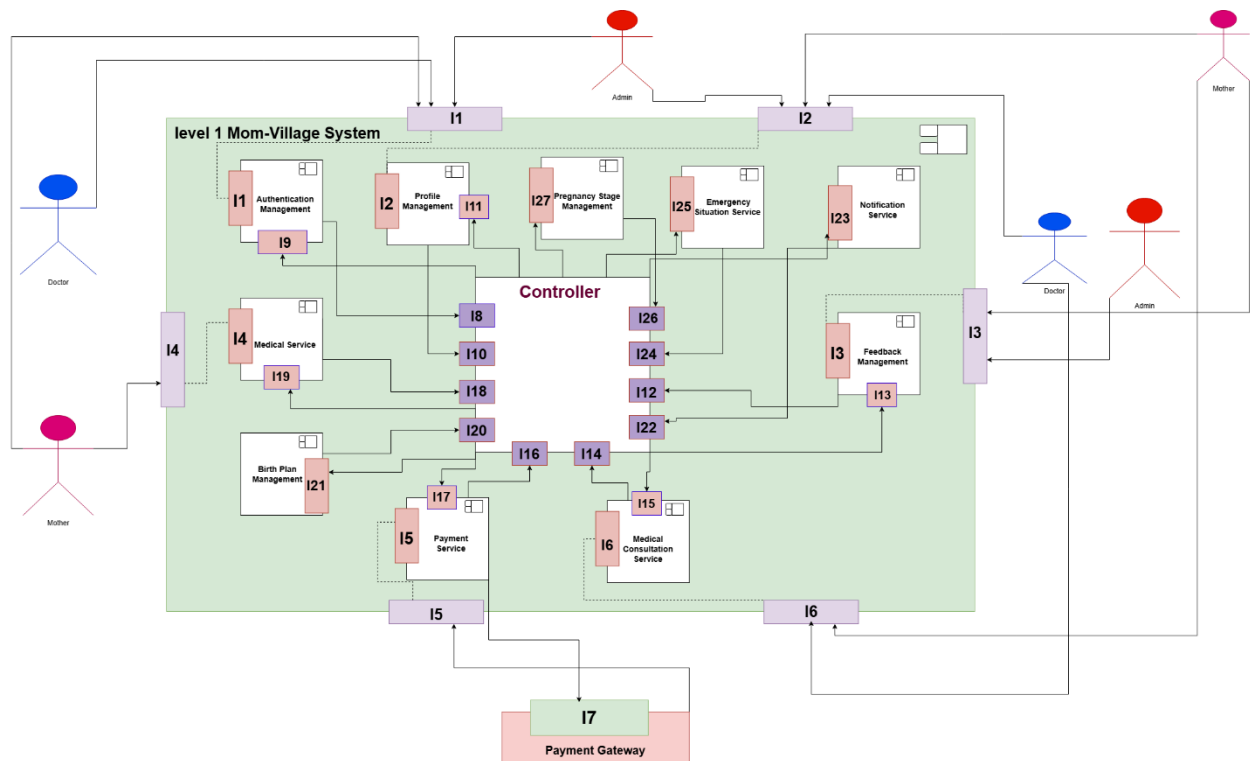


The architecture models with centralized Controller:

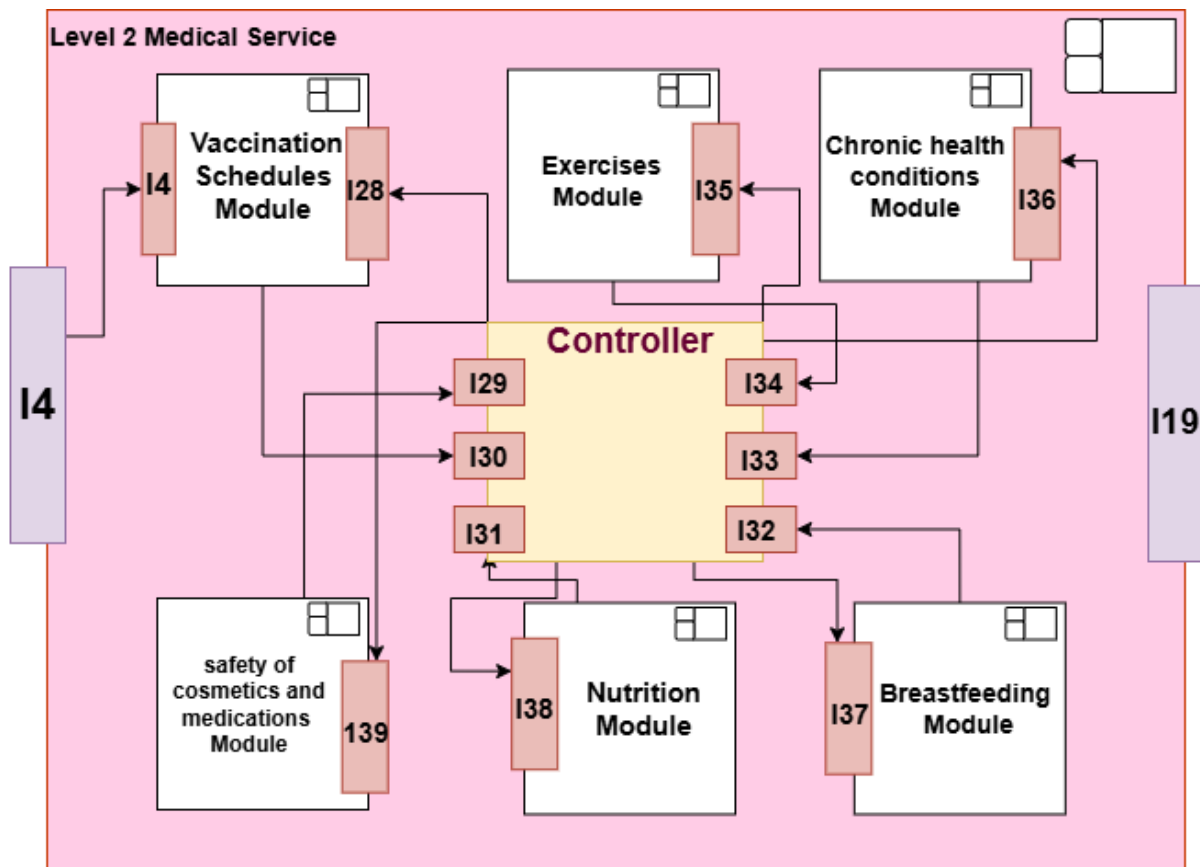
Level 0:



Level 1:



Level 2:



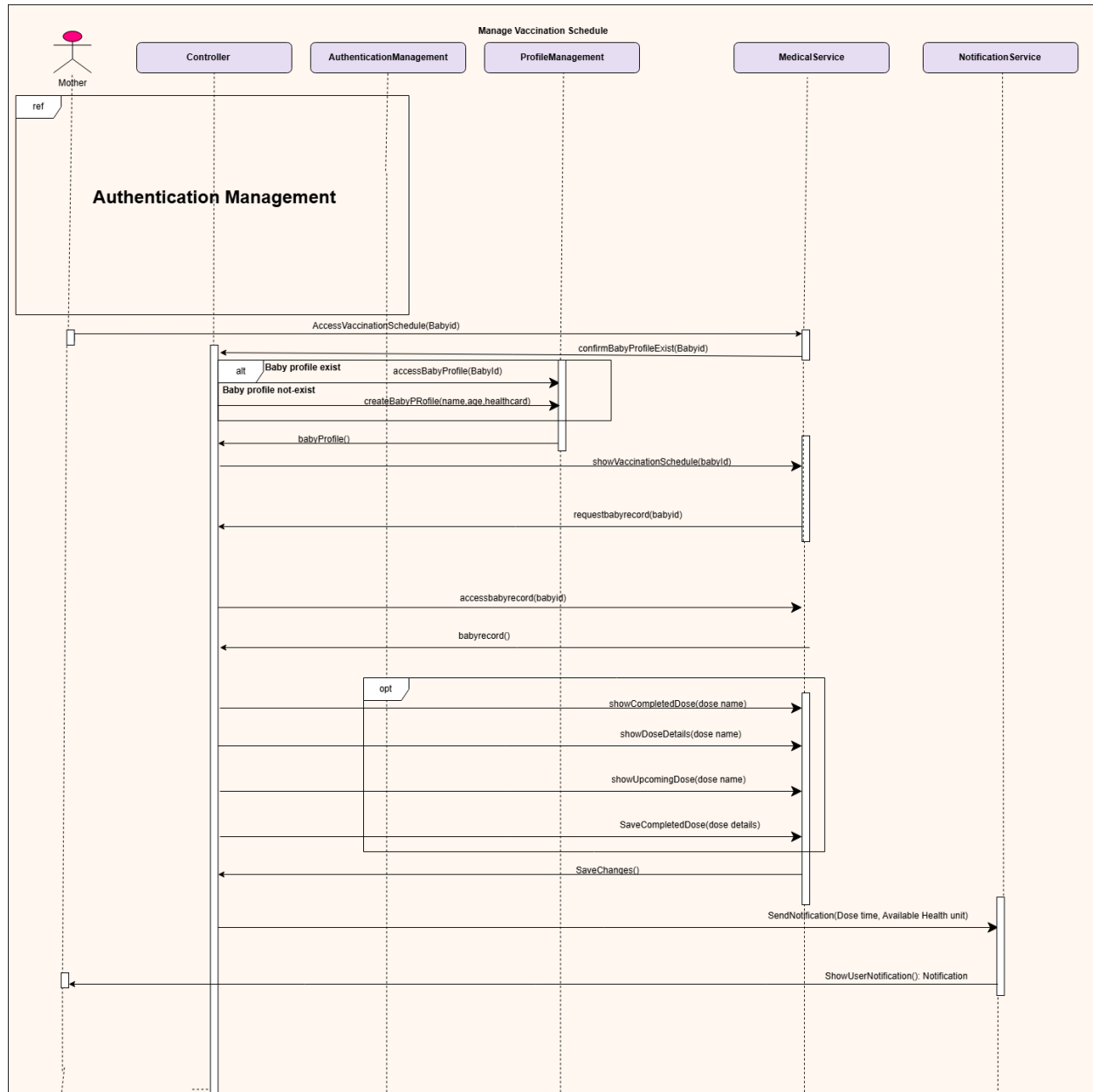
Mapping modeling matrix:

Use cases	Auth Ment	Profile Ment	Pregnancy Stage	Safety	Nutrition	Exercises	Emergency	Birth	Breastfeedin g	Chronic Health	Vaccination	Consultation	Notification	Payment	Feedback
UC1 Manage Authentication	✓														
UC2 Manage Profile		✓													
UC3 Manage Pregnancy Stages			✓										✓		
UC4 Manage Safety of Cosmetics & Medications			✓	✓											
UC5 Manage Nutrition			✓		✓								✓		
UC6 Manage Exercises			✓			✓									
UC7 Manage Emergency Situations							✓					✓	✓		
UC8 Manage Birth Plan			✓					✓					✓		

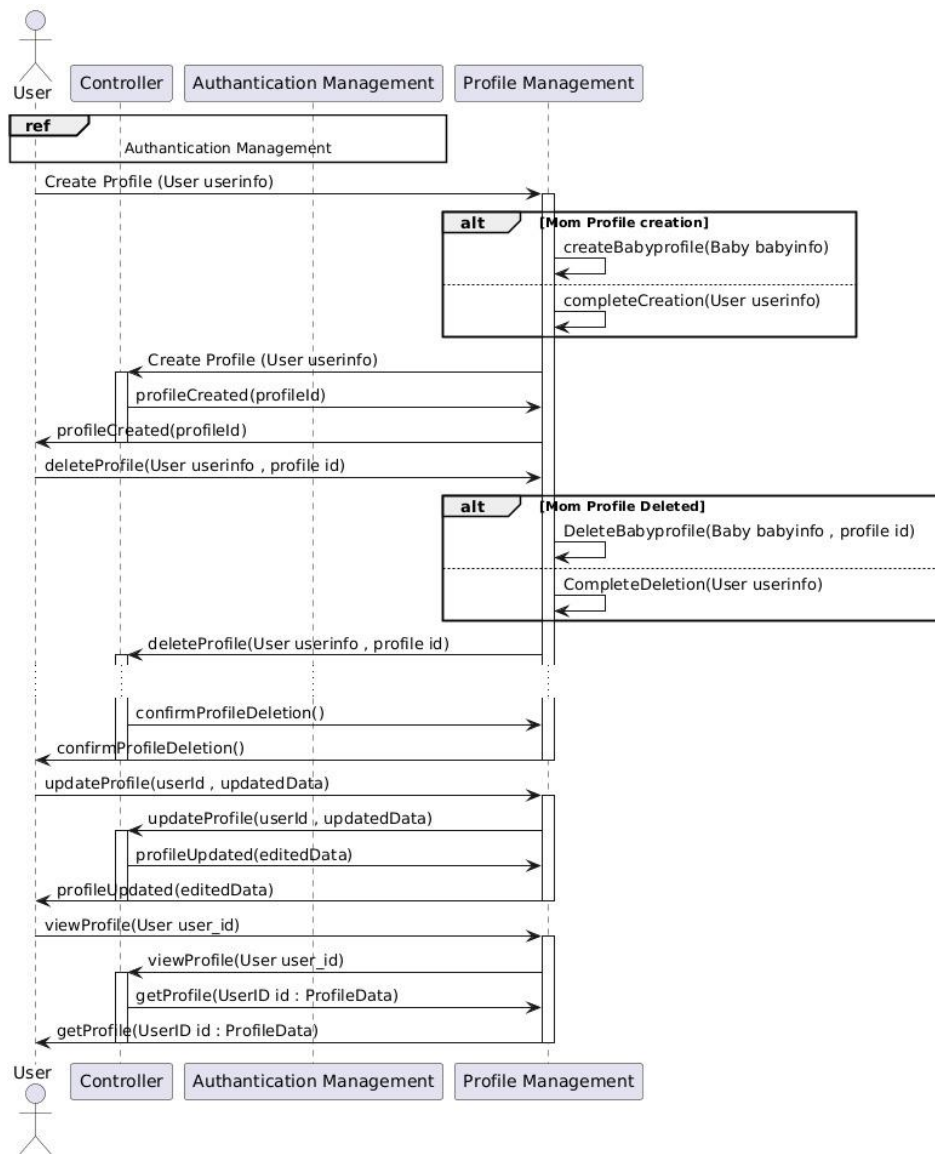
[illegible]

Sequence diagrams:

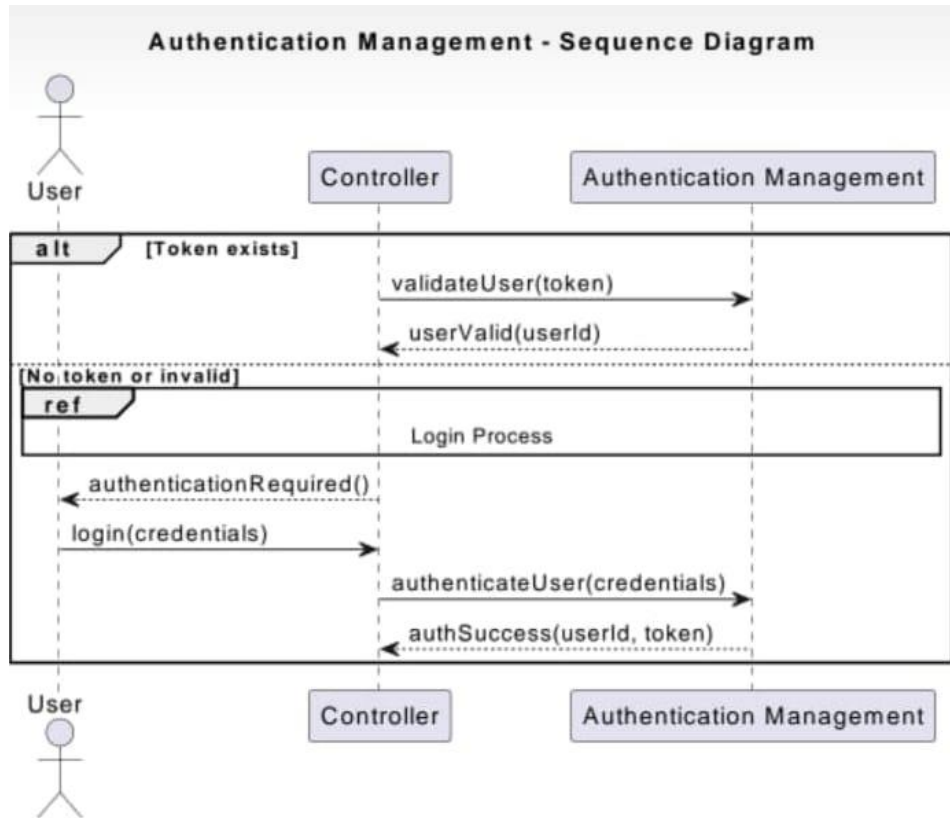
1.Vaccination Schedule:



Profile Management:

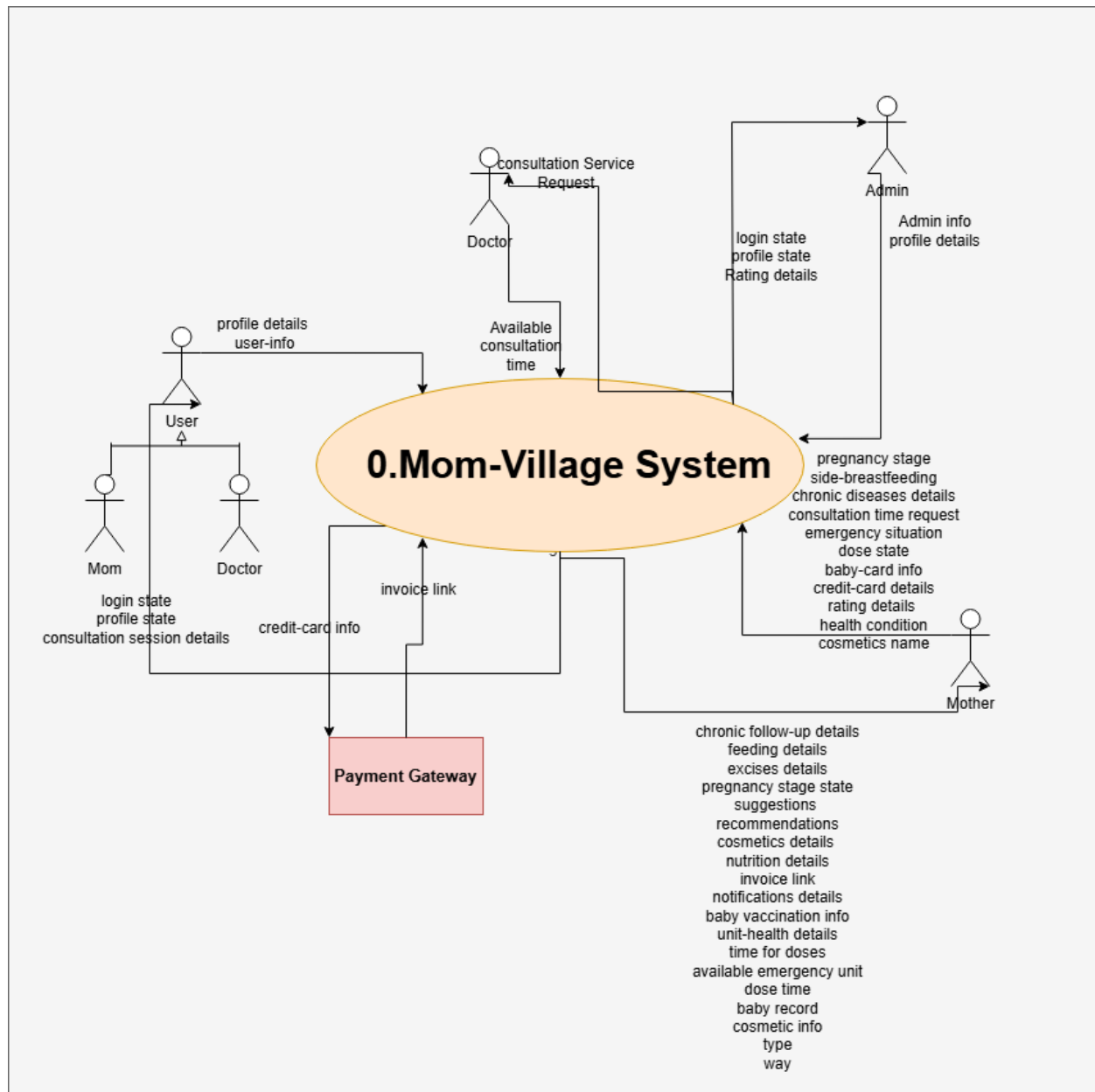


Authentication Management:

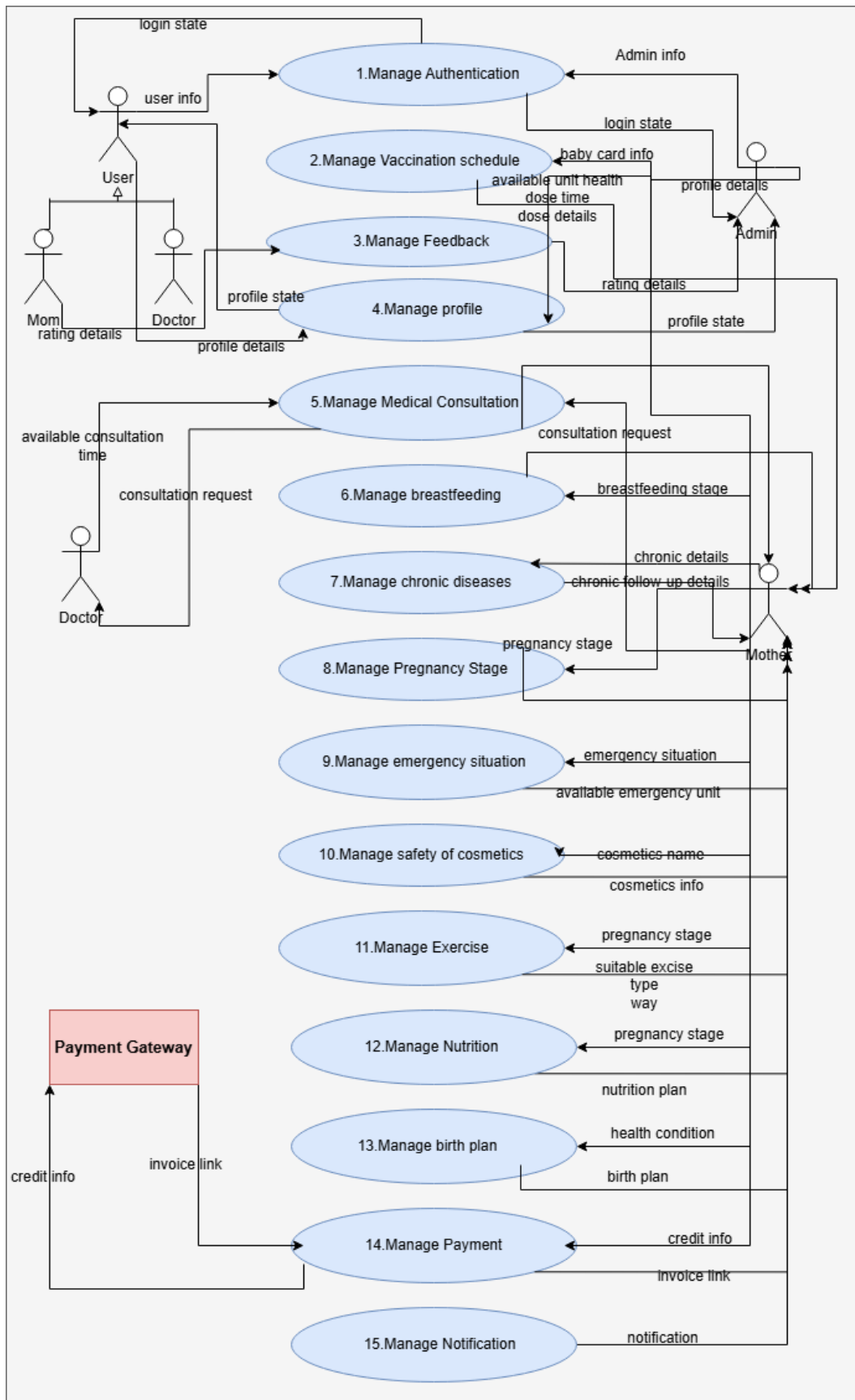


Data Flow Diagram:

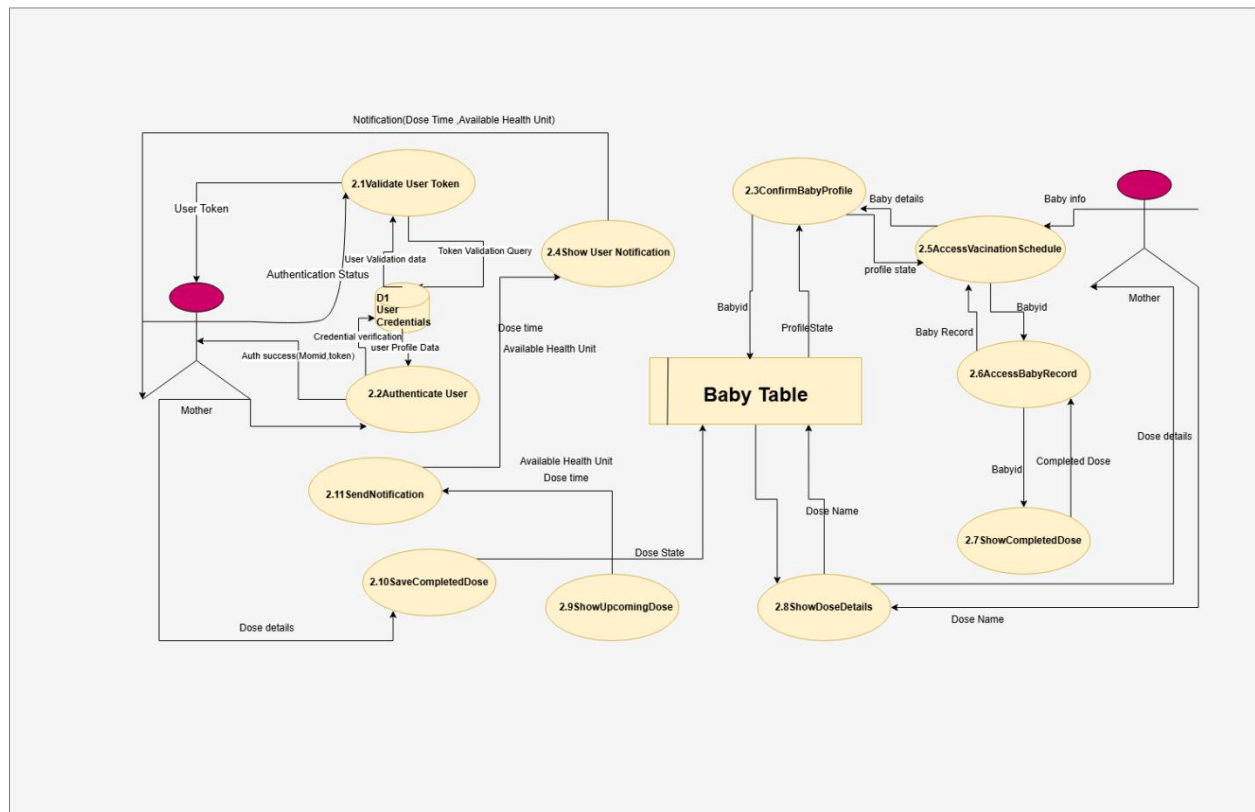
Level 0:



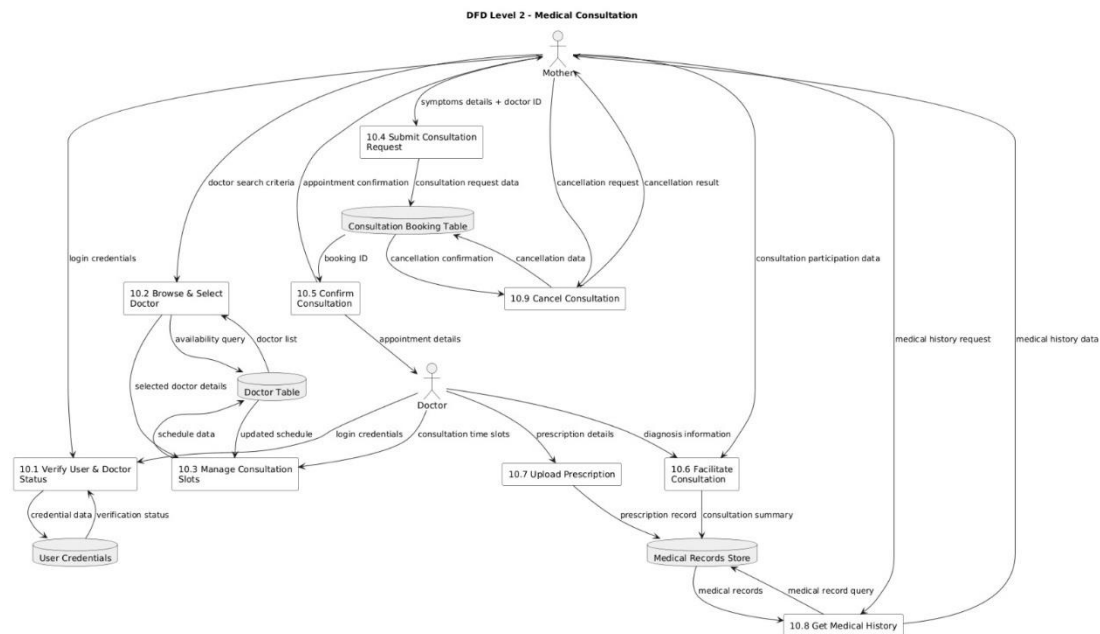
Level 1:



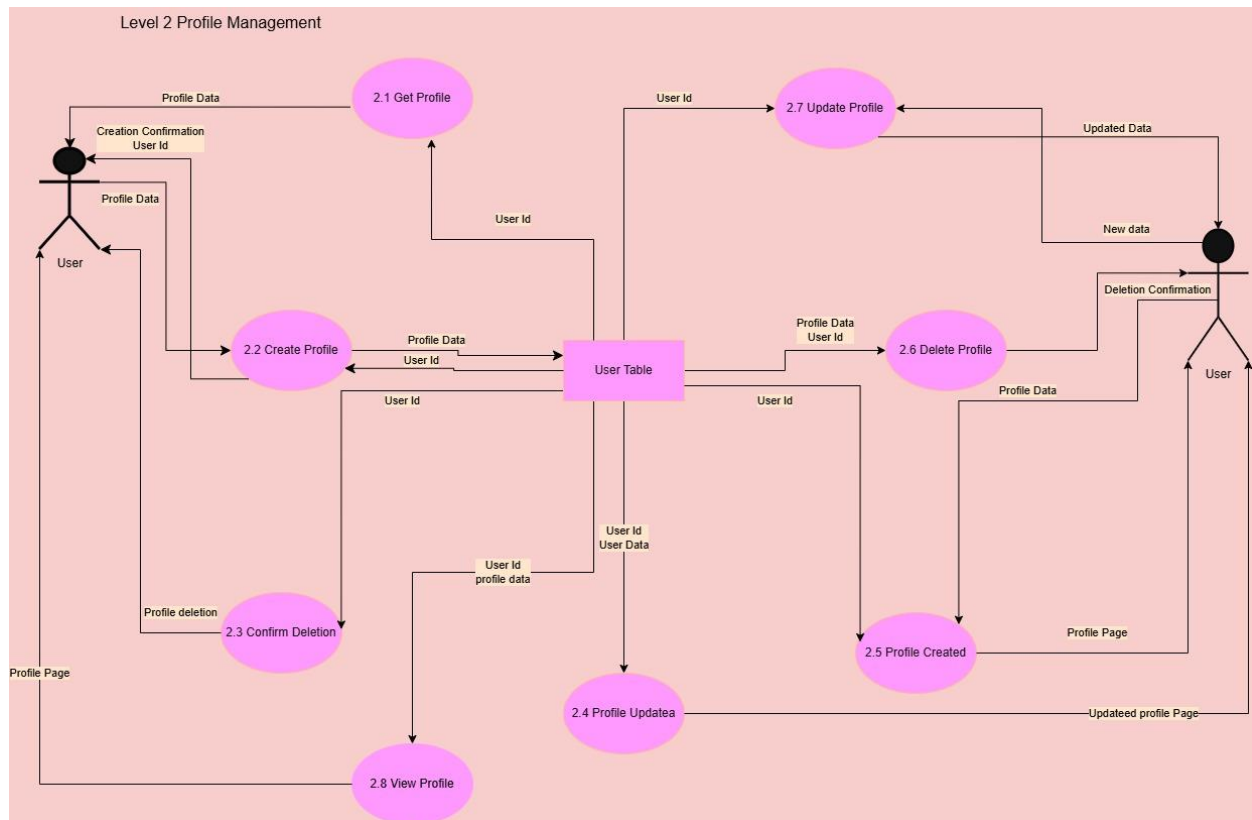
Level 2 Vaccination Schedule:



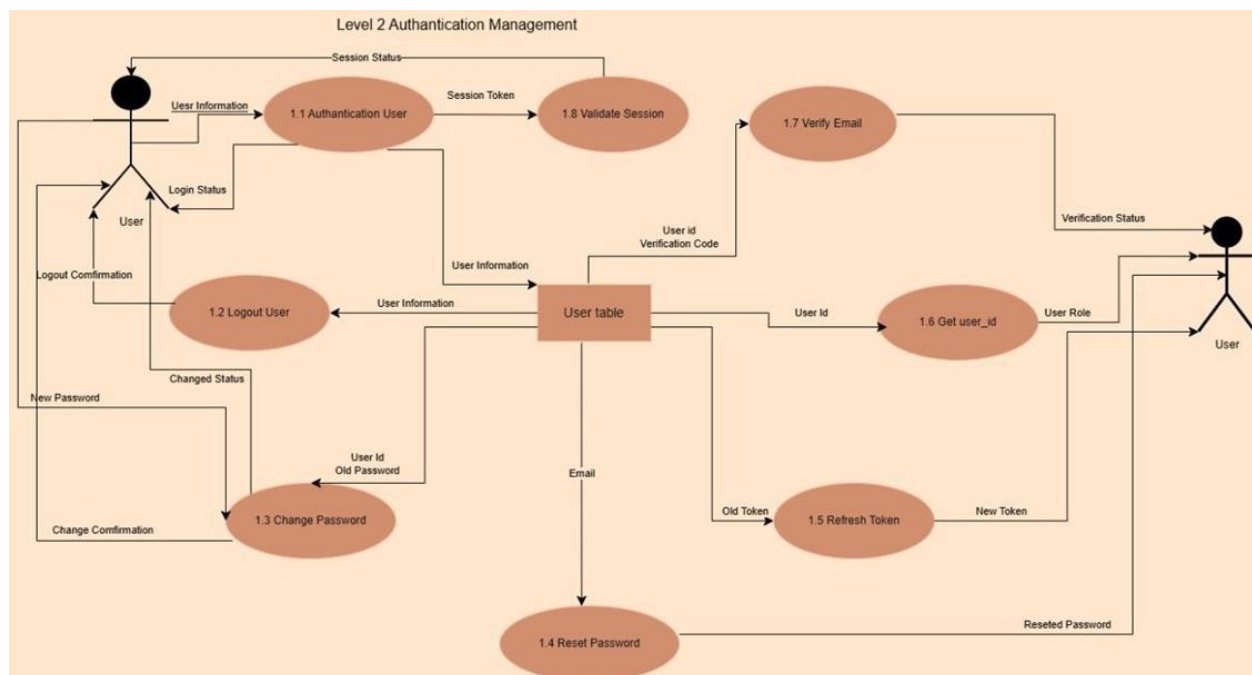
Level 2 Medical Consultation:



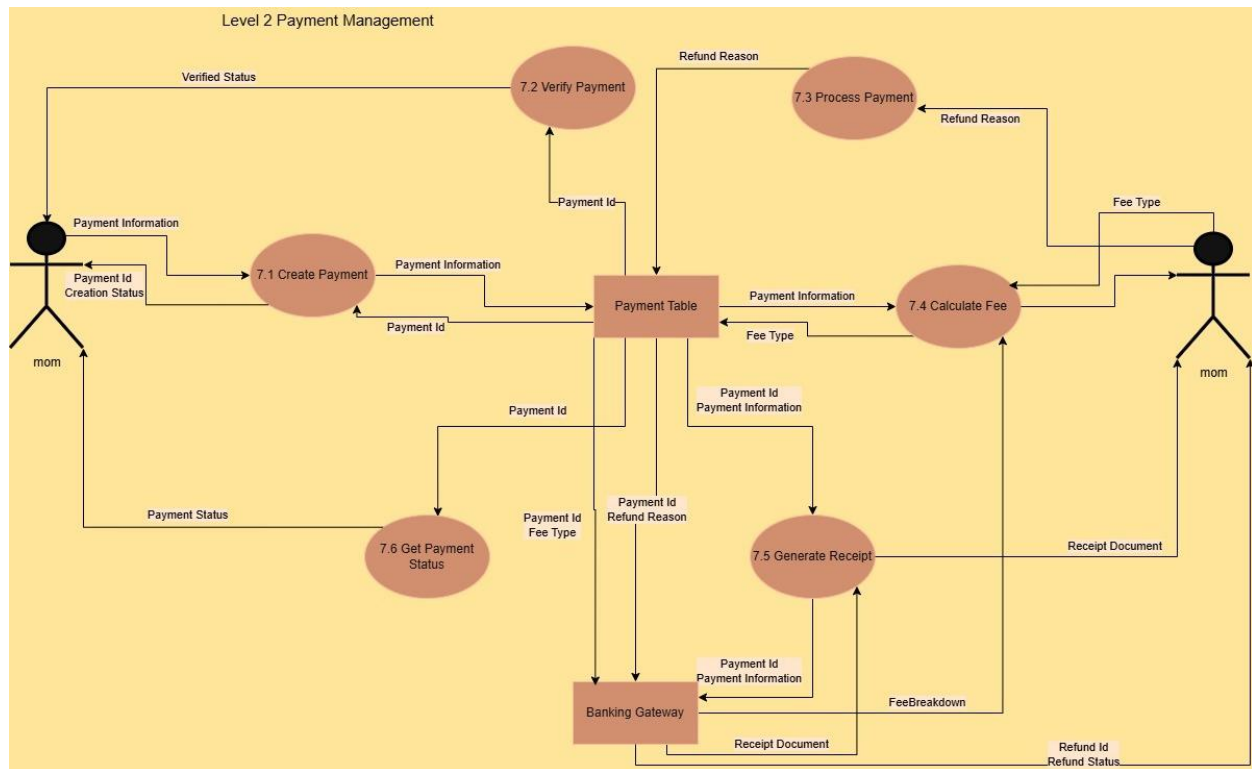
Level 2 Profile Management:



Level 2 Manage Authentication:



Level 2 Manage Payment:

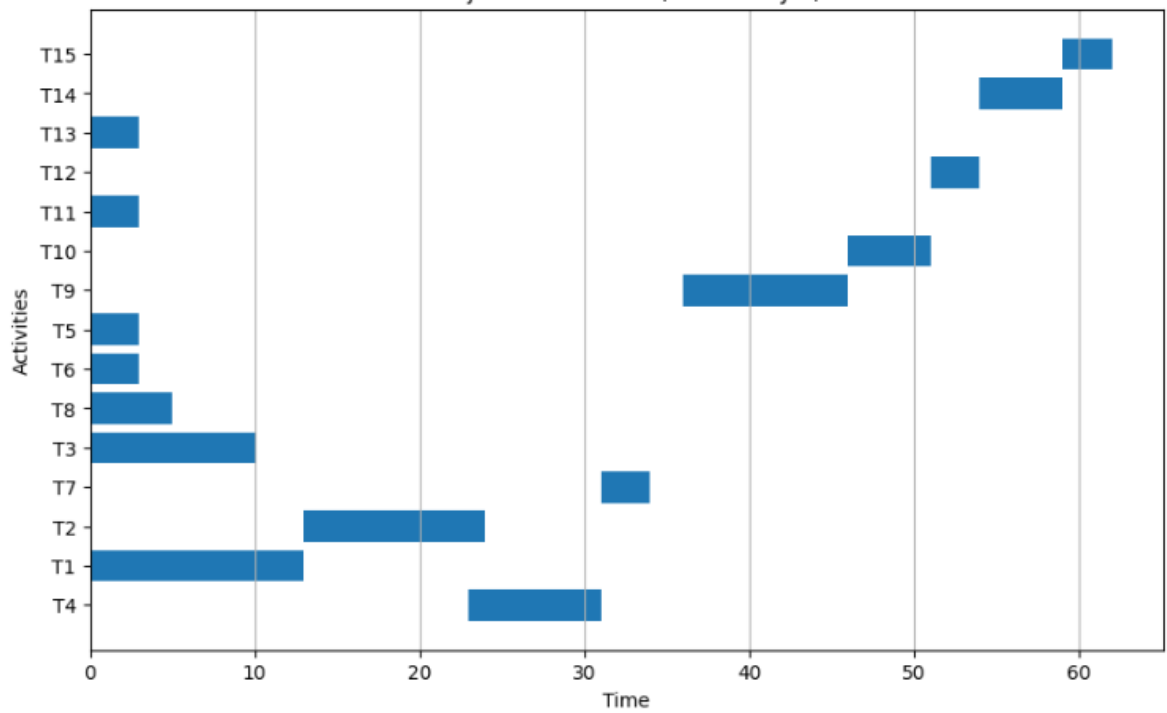
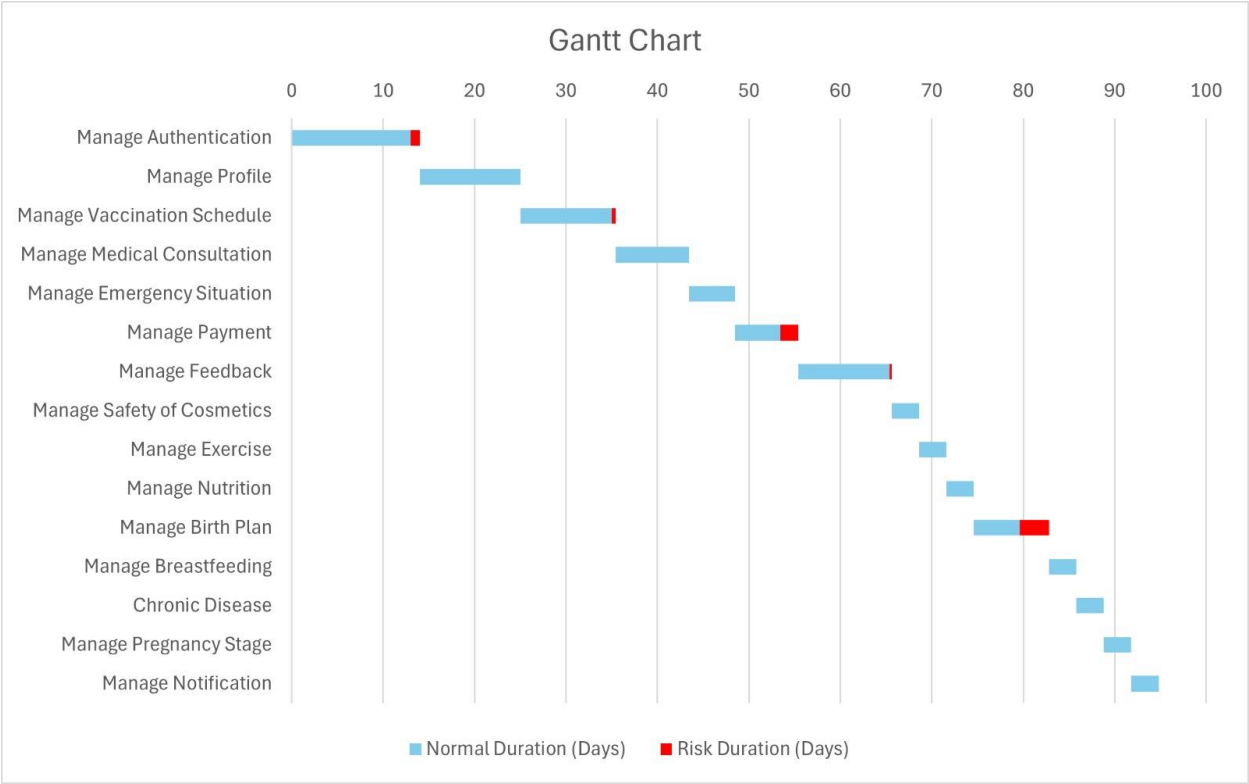


Task durations and dependencies:

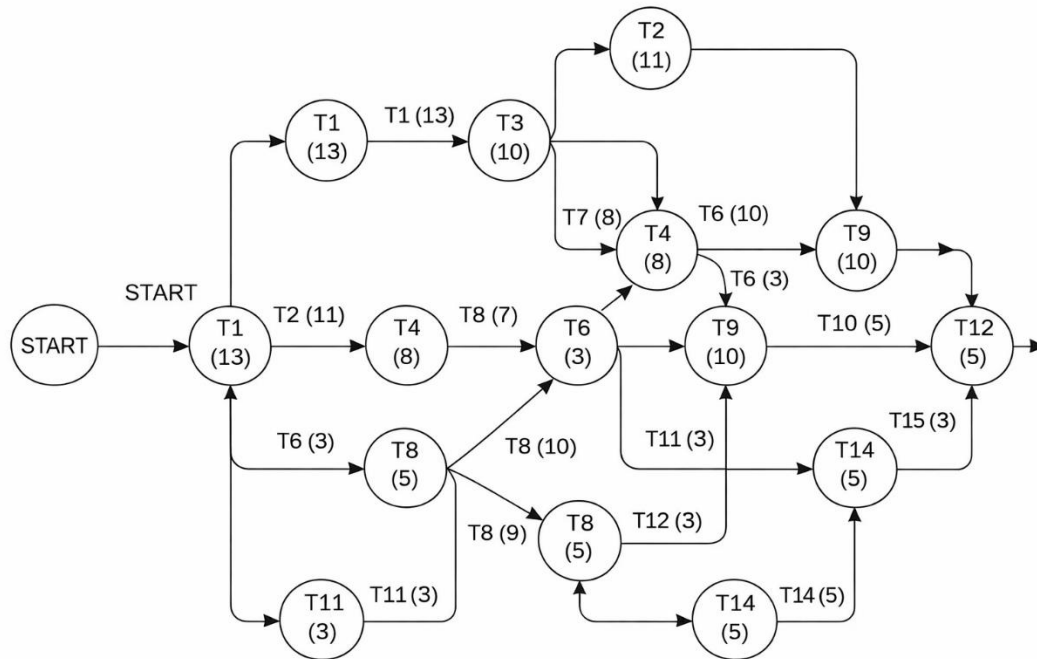
Activity	Duration	Dependency
T1(Manage Authentication)	13	
T2(Manage Profile)	11	T1(M1)
T3(Manage Vaccination Schedule)	10	
T4(Manage Medical Consultation)	8	T2, T3(M2)

T5(Manage Breastfeeding)	3	
T6(Manage Chronic Diseases)	3	
T7(Manage Pregnancy Stage)	3	T4, T5(M3)
T8(Manage Payment)	5	
T9(Manage Feedback)	10	T6, T7, T8(M4)
T10(Manage Emergency Situations)	5	T9(M5)
T11(Manage Safety of cosmetics)	3	
T12(Manage exercises)	3	T10, T11(M6)
T13(Manage Nutrition)	3	
T14(Manage birth plan)	5	T12, T13(M7)
T15(Manage Notifications)	3	T14(M8)

Gantt Chart:



Activity Network:



Critical Path :

T1 → T2 → T4 → T7 → T9 → T10 → T12 → T14 → T15

Minimal Path:

T13 → T14 → T15

Deadline=56+56=112 days.

