IT-314 Software Engineering

Lab - 5

Group - 12

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Develop the Class diagram for Sprint 1/2 (first derive the sequence diagram by identifying entity/boundary/control objects).

- **Identify Entity/Boundary/Control Objects**
- **Develop Sequence Diagram**
- **Develop Analysis Domain Model (i.e., Class Diagram)**

Sprint Details

Sprint 3: Real-Time Chat & Media Sharing (4 weeks)
- ➔ **Goal:** Implement real-time chat functionality and media sharing.
- ➔ **User Stories:**
  - ◆ **Realtime Chat**
    - $[(1*3) + (1*4) + (0*3) + (1*7) + (0*5)] * 0.65 = 9.1$
    - Estimate: 9.1 FP
  - ◆ **Group Chat Room**
    - $[(1*3) + (1*4) + (0*3) + (1*7) + (0*5)] * 0.65 = 9.1$
    - Estimate: 9.1 FP
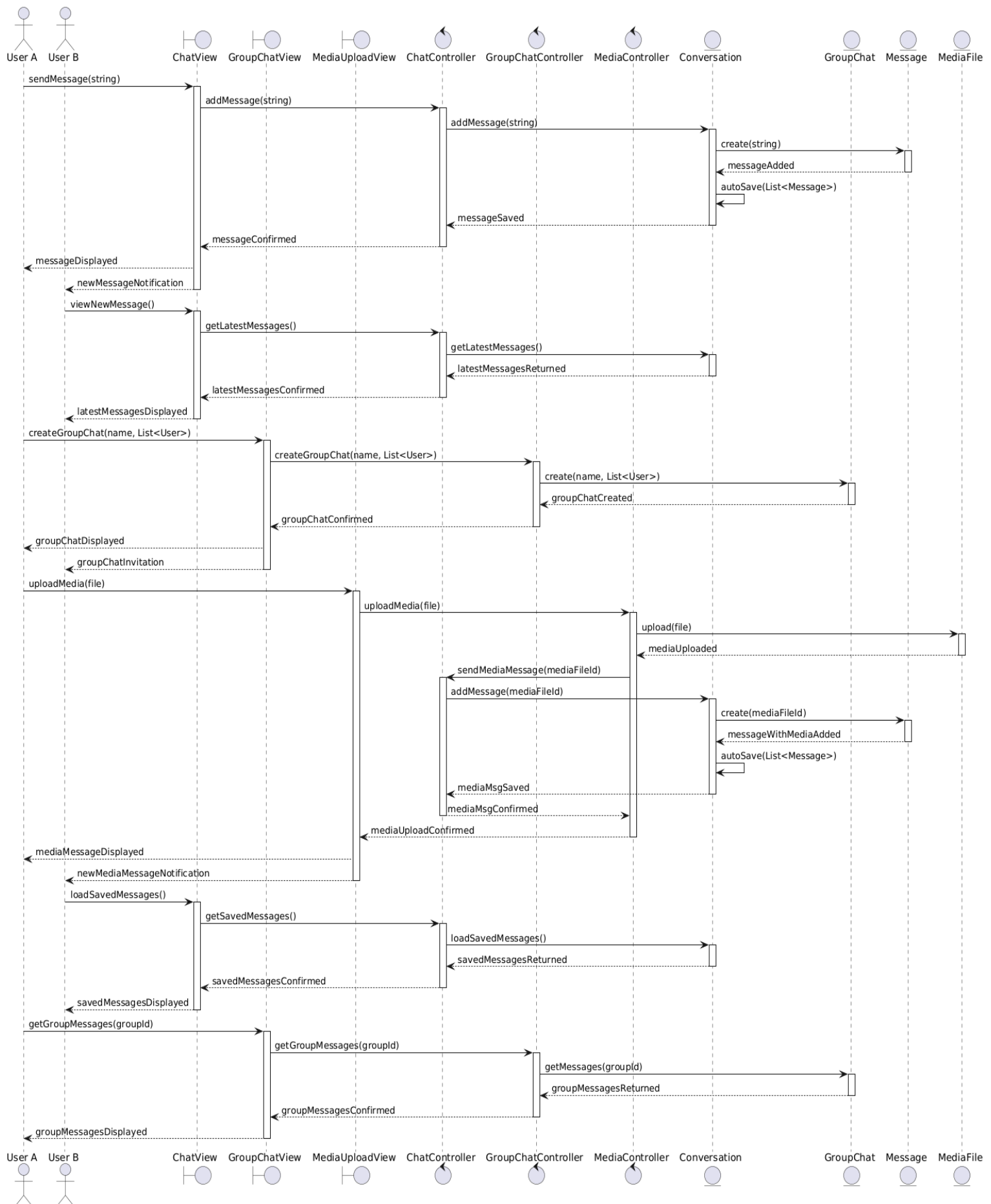 - ◆ **Media Sharing**
    - $[(1*3) + (1*4) + (0*3) + (1*7) + (1*5)] * 0.65 = 12.35$
    - Estimate: 12.35 FP
  - ◆ **Auto-Save Conversations**
    - $[(0*3) + (0*4) + (0*3) + (1*7) + (0*5)] * 0.65 = 4.55$
    - Estimate: 4.55 FP

Total Estimate: 35 FP **Sprint Duration:** 4 weeks

Sequence Diagram for the above sprint:

Class Diagram for the above sprint:

User
- id: int
- username: string
- email: string

+ login()
+ logout()
+ sendMessage(string)
+ shareMedia(file)

Conversation
- id: int
- messages: List<Message>
- participants: List<User>

+ addMessage(string)
+ loadSavedMessage()
+ autoSave(List<Message>)

Message
- id: int
- senderId: int
- receiverId: int
- content: string
- timestamp: datetime

+ edit(string)
+ delete(List<Message>)

MediaFile
- id: int
- fileName: string
- fileType: string
- size: int

+ upload(file)
+ download(file)

GroupChat
- id: int
- name: string
- participants: List<User>

+ createGroupChat(name, List<User>)
+ addParticipant(int)
+ removeParticipant(int)
+ getMessages(id)

involves
sends
receives
shares
participates in
includes
contains
may include