



Lab 6 - Validation Checklist

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WhatsApp

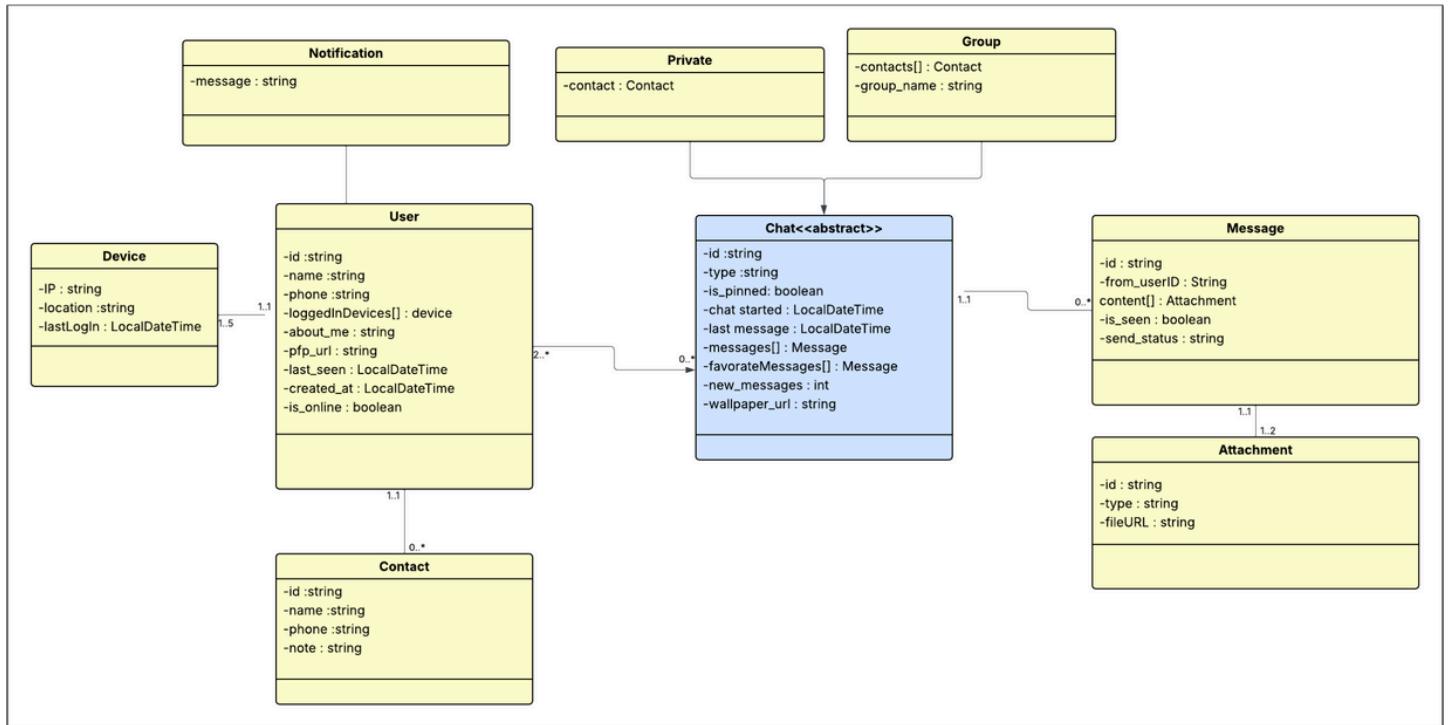
Website Description

- A social media application and online website, where users can register using their phone number, add other users as contacts, and communicate through one-to-one or group chats.
- This report focus on WhatsApp website not mobile application.
- The website has many models as User, Chat, Message, Attachment, Contacts, Notification, Settings , and two sub-classes Private and Group.

How it works

1. User create account by their phone number.
2. The user add other users to his/her Contact list.
3. The user can create new chat through sending a message directly to a contact, or through creating a new group chat.
4. The user can join group chat through accepting the invitation.
5. The user will show Online when he/she use the website.
6. The user will receive a notification when a chat receive new message.
7. The user can communicate with others through Text, Images, Videos, Audio messages.
8. The user can log in through 5 devices.

Models Relation



Validation Checklist

here are three validation checklists for the models User, Chat, Message.

1. User

```

10
11     @Data no usages
12     @AllArgsConstructor
13     public class User {
14         @NotEmpty(message = "Write id")
15         @Size(min=15,max=15,message = "ID length must be 15")
16         private String id;
17         @Size(max=25,message = "name maximum length is 25") //it can be empty
18         private String name;
19         @NotEmpty(message = "Write phone number")
20         @Size(min=10,max=10,message = "phone number must consist of 10digits")
21         private String phone;
22         @NotEmpty(message = "website user must have at least two devices")//main: mobile app/ addition website
23         @Size(min=2,max = 5, message = "user can't be logged in from more than 5 devices")
24         private ArrayList<Device> loggedInDevices;
25         @Size(max = 140, message = "About me have limit of 140 length") //can be empty
26         private String aboutMe;
27         @NotEmpty(message = "pfp not found")
28         @URL
29         private String pfpUrl;
30         @PastOrPresent
31         private LocalDateTime lastSeen;
32         @PastOrPresent
33         private LocalDateTime createdAt;
34         @AssertTrue //creating account means the user is currently active
35         private boolean isOnline;
36         @NotNull
37         private Settings userSettings;
38     }

```

2.Chat

```

11     @Data no usages
12     @AllArgsConstructor
13     public abstract class Chat {
14         @NotEmpty(message = "Write chat id")
15         @Size(min=15,max=15,message = "ID length must be 15")
16         private String id;
17         @NotEmpty
18         @Pattern( regexp = "^(private|group)$",message = "invalid chat type")
19         private String type;
20         @NotNull
21         private boolean isPinned;
22         @NotNull
23         @PastOrPresent
24         private LocalDateTime chatStarted;
25         @NotNull
26         @PastOrPresent
27         private LocalDateTime lastMessage;
28         //can be empty if new chat or content erased
29         private ArrayList<Message> messages;
30         //can be empty
31         private ArrayList<Message> favoriteMessages;
32         @NotNull
33         @PositiveOrZero
34         private int newMessages;
35         @NotEmpty
36         @URL
37         private String wallpaperUrl;
38     }

```

3.Message

```
import java.util.ArrayList;
@Data 2 usages
@AllArgsConstructor
public class Message {
    @NotEmpty(message = "Write id")
    @Size(min=15,max=15,message = "ID length must be 15")
    private String id;
    @NotEmpty(message = "Write sender id")
    @Size(min=15,max=15,message = "ID length must be 15")
    private String fromUserId;
    @NotEmpty(message = "Message must have content")
    @Size(min=1,max=2,message = "message must have one or two attachment only")
    private ArrayList<Attachment> content;
    @NotNull
    private boolean isSeen;
    @NotEmpty
    @Pattern( regexp = "^(seen|send|sending)$",message = "status can be seen send sending")
    private String sendStatus;
}
```

Finally

most of these validations were based on observation of using WhatsApp website. there is little different in rules between the mobile application and website. however, WhatsApp is huge project, it is more than just chatting website, it contains media editor and community system and calls and so on.

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