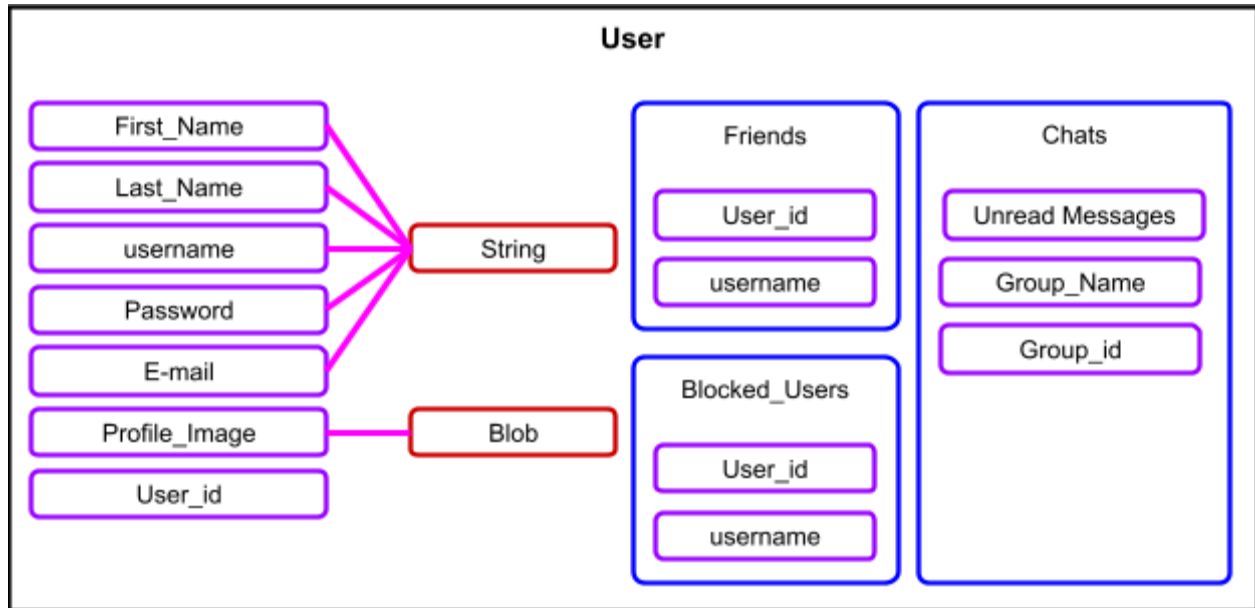
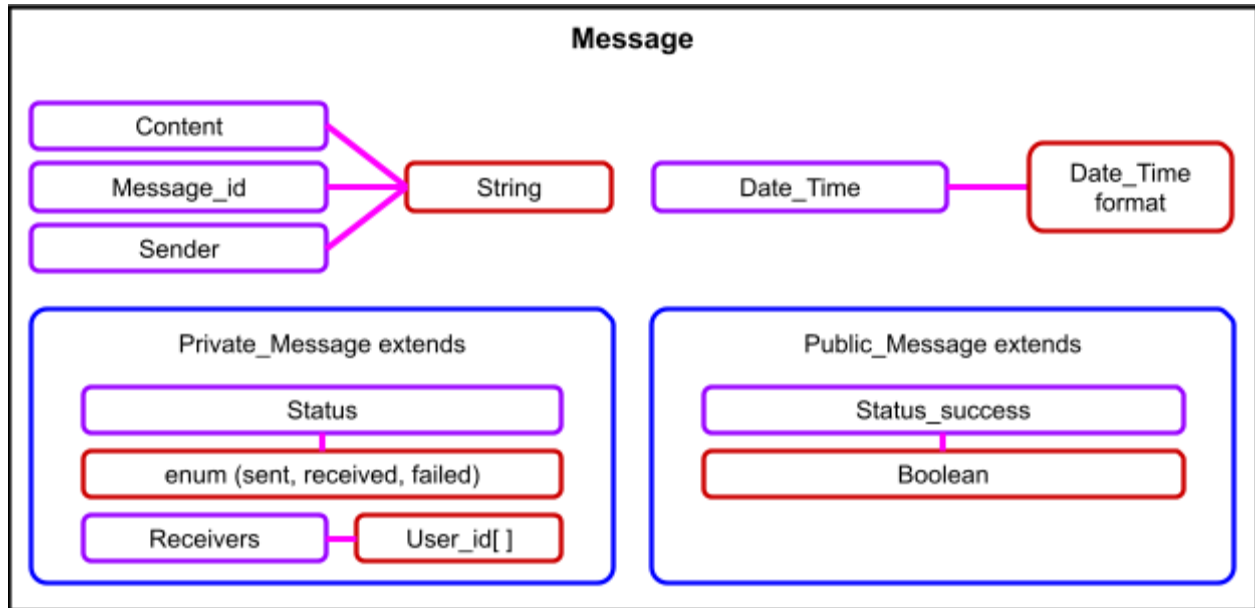




```
User {
  First_name: string
  Last_name: string
  Image: blob
  Username: string
  Email: string
  Password: string
  UID: string
  Friends: {
    Username: string
    UID: string
  }
  Blocked_Users: {
    Username: string
    UID: string
  }
  Chats: [
    Unread_Messages: number // Uses computed pattern
    Group_Name: string
    Group_ID: string
  ]
}
```



```

Message {
  Content: string
  Message_id: string
  Sender: string // UID
  Date_Time: Date time string format

  PrivateMessage extends Message {
    Status: enum(sent, received, failed)
    Receivers: UID[ ]
  }

  PublicMessage extends Message {
    SuccessfullyPosted: boolean
  }
}

```

```

Chat {
  Messages: UID[ ] // IDs of messages
  Members: UID[ ]
  Chat_id: UID
  Background: Blob
  Messages_Bucket: [{
    Time: DateTimeStream
    Contents: string
    Message_ID: string
  }]
}

```

```

    DirectChat {
        Receiver: UID
    }

    GroupChat extends Chat {
        Admin: UID
        Group_name: string
        Group_icon: Blob
        Banned_Users : {
            Username: string
            UID: string
        }
    }
}

Chat_Invite {
    Invite_UID: UID
    Chat: UID
    Receiver: UID
    Sender: UID
    Status: enum(pending, accepted, rejected)
    Date_Time: Date time string format
}

Friend_Request {
    Sender: UID
    Receiver: UID
    Invite_UID: UID
    Date_Time: Date time string format
    Status: enum(pending, accepted, rejected)
}

```