Lab Task 03

Drawing Diagrams and Budget Preparation

1. **Context-Level DFD of the Proposed System.**

   (a). List and describe the entities of the proposed system.

   - **Therapist:** A person outside the system that has access to the external data of the user.
   - **Patient:** The end-user of the system.
   - **Gemini API:** An external API that receives prompts as inputs and provides tokenized responses as outputs.
   - **SQLite:** Stores the user data (basic information and activity)

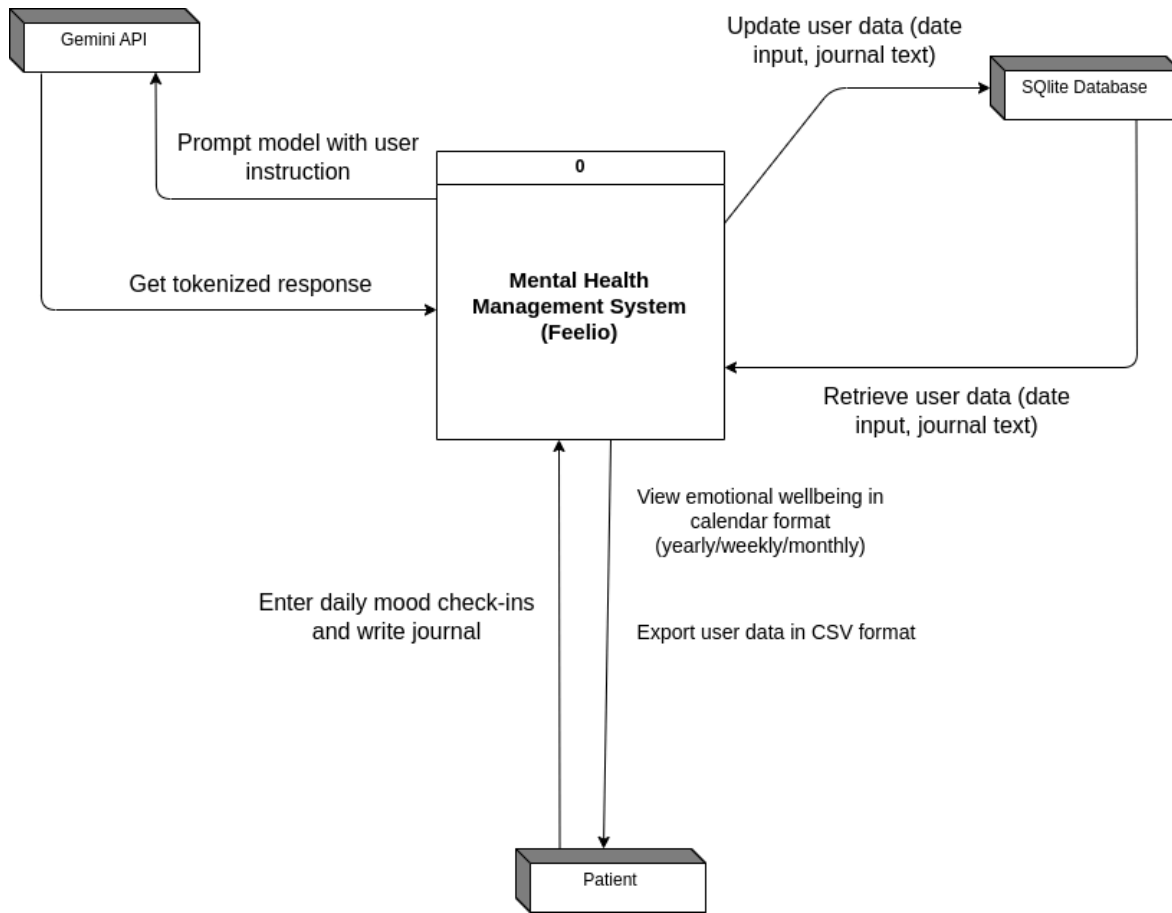   **(b).** Draw the Context-Level DFD.

Fig 1: Context-Level Data Flow Diagram of the proposed system.

2. E-R Diagram of the Project.

(a). List and describe the entities using their types and relationships.

- **Patient (Fundamental Entity)**
- **Therapist (Fundamental Entity):** 1-to-Many with Patients entity
- **Gemini API (Fundamental Entity):** 1-to-1 with Patients
- **SQLite (Fundamental Entity):** 1-to-1 with Patients
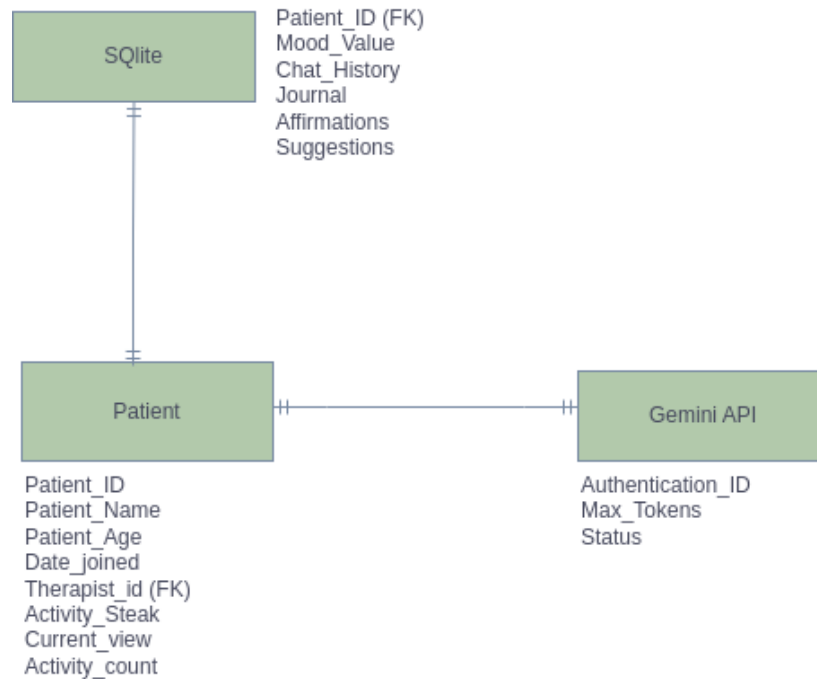
(b). Draw the E-R Diagram.

Fig 2: E-R Diagram of the proposed system.

3. Estimated Costs Breakdown and Budget Preparation.

Team Members:

A: Shadman Shahriar

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WBS Number	Task Title	Task Owners	Min Hours	Max Hours	Avg Rate (Tk)	Min Cost (Tk)	Max Cost (Tk)
1	Concept Development	A, B, C, D, E	20.00	30.00	40.00	800.00	1,200
2	Planning	A, B, C, D, E	30.00	34.00	40.00	1,200.00	1,360
3	Requirements analysis	A, B, C, D, E	20.00	28.00	40.00	800.00	1,120
4	Design	D	50.00	60.00	30.00	1,500.00	1,800
5	Development	A					
5.1	Deliverable #1	A, B, C, D, E	2,200.00	2,400.00	30.00	66,000.00	72,000
5.2	Deliverable #2	A, B	1,400.00	1,500.00	35.00	49,000.00	52,500
5.3	Deliverable #3	A, B, C	1,300.00	1,400.00	37.00	48,100.00	51,800
5.4	Deliverable #4	A, B, C, E	1,600.00	1,700.00	30.00	48,000.00	51,000
5.5	Deliverable #5	A, B, C, D, E	1,800.00	1,900.00	37.00	66,600.00	70,300
6	Reporting and Measurement	B	80.00	100.00	40.00	3,200.00	4,000
7	Implementation	A	200.00	240.00	35.00	7,000.00	8,400
8	Quality assurance	E	50.00	60.00	25.00	1,250.00	1,500
9	QA Testing	C, E	400.00	500.00	28.00	11,200.00	14,000
10	Maintenance	A, B, E	600.00	700.00	33.00	19,800.00	23,100
11	Launch	A, B, C, D, E	140.00	150.00	35.00	4,900.00	5,250
12	Close down	A, B, C, D, E	30.00	35.00	40.00	1,200.00	1,400
Totals			**9,920.00**	**10,837.00**	**555.00 TK**	**330,550 TK**	**360,730 TK**