group number: 9

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name of the project your group is working on: travel planner

- ## Internal Logical Files (ILF):

Internal Logical Files are user-identifiable data maintained within the application itself.

1. **Traveler data**:
    - Includes the traveler's username, password, and ID.
2. **Calendar data**:
    - User's calendar, including userID and name, which stores travel schedules.
3. **Chosen Activities data**:
    - Activity IDs and Calendar IDs linked to user-specific choices, including start and end dates.
4. **Activity data**:
    - Hotels, restaurants, and entertainment categories, along with their description and location.

- ## External Interface Files (EIF):

External Interface Files are user-identifiable data referenced by the system but maintained in another application.

1. **Google API data**:
    - Fetches real-time travel-related information (e.g., transportation availability based on user location).
    - Data is maintained by Google and referenced by the system.
2. **External hotel/restaurant data**:
    - Data retrieved from APIs or web scraping of hotel and restaurant websites.
    - Dynamic data that changes frequently (e.g., hotel availability, restaurant listings).
3. **OpenAI API**:
    - Potentially used to generate extra insights or dynamic content that's not stored locally (e.g., constant events like long-standing attractions: museums, parks).
    - Helpful in reducing load from web scraping each individual website, as the model can provide information on long-standing attractions but not live event updates (e.g., concerts, time-specific festivals) since it's not continuously updated with real-time data.

- ## External Input (EI):

External Input processes data coming from outside the system, such as **user input** or new entries.

1. **Register new traveler**:
    - The system processes the input when a new traveler registers, typically by entering details like username and password, and stores this in the traveler's table.
2. **Change the traveler's username**:
    - The traveler enters a new username, and the system updates and saves it in the database.
3. **Add chosen activities**:
    - Users input selected activities and link them to specific dates within their calendars. The system processes and records these inputs.
4. **Add new activity**:
    - When a user selects or adds an activity (e.g., hotel, restaurant, or entertainment) to their travel plan/calendar. The system processes and stores this data.
5. **Create a new calendar**:
    - The user inputs details to create a new calendar for their travel plan. This input includes the calendar name and associated traveler information.

- ## External Output (EO):

External Output involves processes that send data outside the system boundary and usually require calculations or data transformations.

1. **Display 3 lists of hotels, restaurants, and activities based on locations**:
    - The system queries and processes data from external APIs (like Google, hotel platforms, etc.).
2. **Displaying lists of activities after applying filters**:
    - If a user applies filters (e.g., by category, location), the system processes the data and sends back a refined list. This involves some level of computation.
3. **Displaying a list of chosen activities for a specific traveler based on location**:
    - A report or list of activities (hotels, restaurants, entertainment) for a given traveler over a specified period, combining data from both the chosen activities and the calendar. The system must perform computations, such as joining different tables and filtering data based on the traveler's ID and location.
    - Displaying on both the search page and calendar page because the sidebar appears on both pages.
4. **Displaying the list of the saved calendars of the traveler**:

    - To display the list of saved calendars, the system must loop through the calendar table and identify which calendars belong to the specific user.
5. **Displaying a chosen calendar of a traveler**:
    - Retrieving a calendar view for a user, showing dates of trips or planned activities. This includes joining the chosen activities table with the activities table to populate the data to be displayed in the calendar.
6. **Transportation details based on location and time**:
    - Output is generated by fetching data from Google API for transport schedules near the traveler's current location, combining this data with the travel calendar.

- **External Inquiry (EQ):**

External Inquiry involves reading data from the system without modifying it or performing complex calculations. It's usually a simple data retrieval process without significant transformation.

1. **Review name**:
    - Retrieving a traveler's account name since it's a straightforward query to access stored information without any further computation.

Group FPA Software Metrics Table: