Database Analysis Worksheet

# Step 1: Identify Entities, Attributes, and Primary Keys

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Entity |  | Attributes |  | Primary Key |
| Notification |  | User\_ID, Message |  | User\_ID |
| Usage |  | Email, User\_ID, Date, App, Restriction\_Time, Summary |  | Email, User\_ID |
| Users |  | Email, Password, First\_Name, Last\_Name, TOS, Birthday, Forgot\_Code |  | Email |

# Step 2: Define Relationships between the Entities

|  |  |  |  |
| --- | --- | --- | --- |
| Entity 1 | Entity 2 | How Related?  (2 sentences) | Relationship Type (1:1, 1:N, M:N) |
| Users | Notification | One user can get notifications related to many applications. | 1:M |
| Users | Usage | Each user has a statistic of usage related to each application. | 1:M |
| Notification | Usage | There is one notification for usage on multiple applications. T | 1:M |
| Notification | Users | Each notification about time used on an application is attributed to one user. | 1:1 |
| Usage | Notification | Each statistic of application usage corresponds to one notification. | 1:1 |
| Usage | Users | Each statistic of application usage is attributed to one user. | 1:1 |

# Step 3: Draw your Entity-Relationship Diagram (Hand-drawn is okay!!!)

Usage

M

Users

1 1

Notification M

# Step 4: Specify Tables, Fields, and Data Types

Fill out a chart for each table to be included in the database. YOU MAY NEED MORE TABLES THAN THERE ARE HERE. The ones here are just to get you started. Mark the primary key with a double asterisk (\*\*). Mark any foreign keys with the letters “fk” in parentheses, (fk).

Name of 1st Table: \_\_\_\_\_\_\_\_Notification\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |
| --- | --- |
| Field Name | Data Type |
| User\_ID\* | String |
| Message | String |

Name of 2nd Table: \_\_\_\_\_\_\_\_Usage\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |
| --- | --- |
| Field Name | Data Type |
| Email\* | String |
| User\_ID\* | String |
| Date | String |
| App | String |
| Restriction\_Time | Int |
| Summary | String |

Name of 3rd Table: \_\_\_\_\_\_\_\_Users\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |
| --- | --- |
| Field Name | Data Type |
| Email\* | String |
| Password | String |
| First\_Name | String |
| Last\_Name | String |
| TOS | String |
| Birthday | String |
| Forgot\_Code | String |