## Database design phase 2 – Logical (and later Physical) Design

### Data Dictionary

Table descriptions

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Table name** | **Description** | **Synonyms/Aliases (to be avoided)** | **Occurrence** | **Medium / Max amount** | **Volatility** |
| Category | Container for ideas that share the same scope | Type, domain, scope | Added whenever needed by an idea that does not fit into an existing Category | 1/100 | Low |
| Idea | Suggestion made by one or more members | Suggestion, | Added when one or more members suggests an idea | 0/5000 | High |
| Member | Person with authority to add ideas and make comments, (adding categories?) | Participant, User | Added by signing up or by admins | 0/1000 | Low |
| Comment | Member input regarding a certain idea | Post | Added by members to ideas they are interested in | 0/10000 | Medium |

Table 1.1 Data Dictionary. Table descriptions.

Column descriptions with the data types of the chosen technical storage (Relational Database, MariaDB Database):

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Table name** | **Column** | **Description** | **Data type and Length** | **NULL / UNIQUE** | **Primary/Alternate key** | **Special value domain?** |
| Category | id | Unique identifier | INTEGER | PK | PRIMARY KEY (surrogate key) | 1-99 AUTOINCREMENT |
|  | name | Unique name | VARCHAR(320) | NOT NULL/ UNIQUE | ALTERNATE KEY |  |
|  | description | Description of the category | VARCHAR(20000) | NOT NULL | - |  |
|  | burgetLimit | Maximum budget | DECIMAL(19, 4) | NOT NULL | - |  |
|  | isActive | Visibility? | BOOLEAN | NOT NULL | - | Default = FALSE |
|  |  |  |  |  |  |  |
| Member | id | Unique identifier | INTEGER | PK | PRIMARY KEY (surrogate key) | 101-999 AUTOINCREMENT |
|  | firstName | Member’s first name | VARCHAR(50) | NOT NULL | - |  |
|  | lastName | Member’s last name | VARCHAR(50) | NOT NULL | - |  |
|  | email | Member’s email address | VARCHAR(320) | NOT NULL/ UNIQUE | AK? |  |
|  |  |  |  |  |  |  |
| Idea | id | Unique identifier | INTEGER | PK | PRIMARY KEY (surrogate key) | 1001-9999 AUTOINCREMENT |
|  | name | Idea’s name | VARCHAR(320) | NOT NULL | - |  |
|  | description | Description of the idea | VARCHAR(20000) | NOT NULL | - |  |
|  | categoryId | The id of the category this idea belongs in | => | NOT NULL | FOREIGN KEY => Category(id) |  |
|  | budget | Suggested budget for the idea | DECIMAL(19, 4) | NOT NULL | - |  |
|  | readyForComments | Visibility? | BOOLEAN | NOT NULL | - | Default = 0 |
|  | peopleNeeded | How many people are needed for this idea | SMALLINT | NOT NULL | - |  |
|  | creationDate | When the idea was created | DATE | NOT NULL | - |  |
|  | lastModified | When the idea was modified last | DATETIME | NULL | - | Default = null |
|  |  |  |  |  |  |  |
| Comment | memberId | The id of the commenter | (FK) |  | PK/ FOREIGN KEY => Member(id) |  |
|  | ideaId | The id of the idea being commented | (FK) |  | PK/ FOREIGN KEY Idea(id) | Could be part of the PK, but not really necessary? |
|  | commentTimestamp | Date and time of the comment creation | DATETIME |  | PK |  |
|  | commentLine | The comment body | VARCHAR(20000) | NOT NULL | - |  |
|  |  |  |  |  |  |  |
| Idea\_Member | IdeaId | The id of the idea | (FK) |  | PK/ FOREIGN KEY Idea(id) |  |
|  | memberId | The id of the member collaborating on this idea | (FK) |  | PK/ FOREIGN KEY => Member(id) |  |

Table 1.2 Data Dictionary. Column descriptions.