Text

Description automatically generated

Project 4

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DESCRIPTION



In care and cure, many scientists have invested a lot of time and money to make an elixir called the rejuvenating pill, which is a magical medicine that can cure all types of cancer. Care and Cure is a non-profit organization that aims to deliver its magical medicine to the poor who are suffering with cancer and are unable to afford cancer treatment.

Care and Cure is one such kind of organization that collaborates with many other organizations and joins hands with many sponsors for funding, because of which this non-profit organization can deliver its elixir to many people for free. As care and cure are growing every day and their reach is expanding, the organization needs to adopt a new modern way to manage its data to function smoothly. This project is mainly dependent on creating and managing the database for care and cure. As care and cure is an entity that has many departments that are required to be maintained and managed, there are key departments where database management is critical to their operation.

In order to create and manage databases, our team used Oracle SQL Developer, and the entire coding for creating tables, assigning keys, data types, all the queries, stored procedures, views, and data dictionaries was all coded in oracle SQL developer.

To have a better understanding of the database, we have created an ERD using Crowfoot’s notation, and this gives a clear understanding of how each table is interlinked with another and what kind of relationships they maintain.

# How To Login tO Database



# Graphical user interface, text, application Description automatically generated

The yellow highlighted area is where the + symbol we add the already created autonomous database should be selected, and then a pop-up will appear, which results in connecting, testing, and saving the autonomous database. This entire process is needed only once, as the subsequent logins are not necessary until the database connection is reset.

After adding the already created autonomous database we will get an empty page where we do all the coding and querying and creating stored procedures as well

# Conceptual Design (ERD)



# 

**Bussiness Rules :**

|  |
| --- |
| 1. A test can have one and only patient, but a patient can have many tests |
| 1. A patient can have one and only doctor, but doctor can have one or more patients |
| 1. A sponsor has one and only collaboration, but a collaboration can have one or more sponsors. |



**Data Dictionary for Care and Cure Database**

**Tables**

**Collaborations** = represents the collaborations that are happening in the organization.

**Doctor** = represents the doctors that are helping in the organization

**Drug** = represents the drugs used and availability for the organization

**Financial records**= Represents the transactions happening in the organizations

**Organization**= represents the people working in the organization

**Patients**= represents the number of patients that are treated by the organizations

**Sponsors**= represents number of charitable sponsors sponsoring the organization

**Tests**= represents the type and number of tests performed by the Doctor.

**Treatment** = represents the type and progress of the treatment prescribed by doc.

**Volunteers**= represents the people helping the patients in the organization other than doctors



**Collaborations**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Key Type  (if any)** | **Definition** | **Data Type** | **Required**  **(Y/N)** | **Constraints  (if any)** |
| Collaboration ID | PK | Unique identifier for the Collaborators | INT | Y | Unique.  Cannot be more than 4 digits. |
| Collaboration Title |  | Name given to each Collaboration | Varchar2 | Y | - |

**Doctor:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Key Type  (if any)** | **Definition** | **Data Type** | **Required**  **(Y/N)** | **Constraints  (if any)** |
| Doctor id | PK | Unique identifier for every drug | INT | Y | Unique.  Cannot be more than 4digits. |
| First name |  | Name of the drug | varchar2(20) | Y | Should be approved by government |
| Last name |  | Ingredients used in drug | varchar2(20) | Y | Prescribed by the doctor |
| Specialization |  | Which area the doctor is specialized | varchar2(50) | Y | It means the specialty or the field where the Doctor is proficient in |
| Treatment Id | FK |  | INT | Y | Must have enforced in Treatment table. |



**Drug:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Key Type  (if any)** | **Definition** | **Data Type** | **Required**  **(Y/N)** | **Constraints  (if any)** |
| Drug code | PK | Unique identifier for every drug | INT | Y | Unique.  Cannot be more than 4digits. |
| Drug name |  | Name of the drug | varchar2(20) | Y | Should be approved by government |
| Drug composition |  | Ingredients used in drug | varchar2(100) | Y | Prescribed by the doctor |

**Financial Records:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Key Type  (if any)** | **Definition** | **Data Type** | **Required**  **(Y/N)** | **Constraints  (if any)** |
| Transaction ID | PK | Unique for patient | INT | Y | Transaction ID Cannot be more than 4digits. |
| Amount of transaction |  | The amount disbursed from patient to patient | INT | Y | No limit |



**Volunteers:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Key Type  (if any)** | **Definition** | **Data Type** | **Required**  **(Y/N)** | **Constraints  (if any)** |
| Volunteer id | PK | Unique for each volunteer | INT | Y | Unique.  Cannot be more than 6digits |
| Avail (availability) |  | Volunteer availability for patients | varchar2(20) | Y | The period where the volunteer is available to work |

**Organization:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Key Type  (if any)** | **Definition** | **Data Type** | **Required**  **(Y/N)** | **Constraints  (if any)** |
| EmployeeID | PK | Employees who work in the organisation | INT | Y | EmployeeID cannot be more than 20 digits |
| OPD ID | FK | Unique for patient | INT | Y | Must be enforced in patient table. |
| Sponsor code | FK | Unique for sponsor | INT | Y | Must be enforced in sponsor table |
| Transaction ID | FK | Unique for every transaction | INT | Y | Must be enforced in TRANSACTION table |
| Volunteer ID | FK | Unique for every volunteer | INT | Y | Must be enforced in Volunteer table |



**Patients:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Key Type  (if any)** | **Definition** | **Data Type** | **Required**  **(Y/N)** | **Constraints  (if any)** |
| Patient OPD ID | PK | Unique for patient | INT | Y | Unique.  Cannot be more than 6digits |
| Test id | FK | Unique for TEST | INT | Y | Must be enforced in TEST table |
| Doctor ID | FK | Unique for DOCTOR | INT | Y | Must be enforced in DOCTOR table |

**SPONSORS:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Key Type  (if any)** | **Definition** | **Data Type** | **Required**  **(Y/N)** | **Constraints  (if any)** |
| Sponsor code | PK | Unique for sponsor | INT | Y | Unique.  Cannot be more than 7digits |
| Collaboration ID | FK | Unique for TEST | INT | Y | Must be enforced in Collaborations table |



**TESTS:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Key Type  (if any)** | **Definition** | **Data Type** | **Required**  **(Y/N)** | **Constraints  (if any)** |
| Test ID | PK | Unique for every test | INT | Y | Unique.  Cannot be more than 4digits |
| Test Cost |  | Unique for TEST | INT | Y |  |
| Test Taken |  | Test taken by patient | varchar2(50) | Y | Must be prescribed by doctor |



**Treatment:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute Name** | **Key Type  (if any)** | **Definition** | **Data Type** | **Required**  **(Y/N)** | **Constraints  (if any)** |
| Treatment ID | Pk | Unique for patient | INT | Y | Not more than 4 digits |
| Phase Number |  | Indicates the stage of Treatment | INT | Y |  |
| Number of patients |  | People getting treated | INT | Y |  |
| Drug code | FK | Unique for every Drug | INT | Y | Must be enforced in Drug table |



**Thank You**