Mail Database Project

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1   Main Entities

- User (Mailroom Employee)

- Package

- Database

- Database Tables

- Application/System

- Email

- Cadet

2   Attributes

2.1   User

- Username

- Password

- Access Priviledge

2.2   Package

- Tracking Number

- Addressee

- Address

2.3   Database

- Name

- Filepath

- Sqlite3 Connection

- Sqlite3 Cursor

- Tables

2.4 Table

- Properties

- Name

2.5 Email

- Addressee

- Subject

- Content

2.6 System

- GUI state

- User

2.7 Cadet

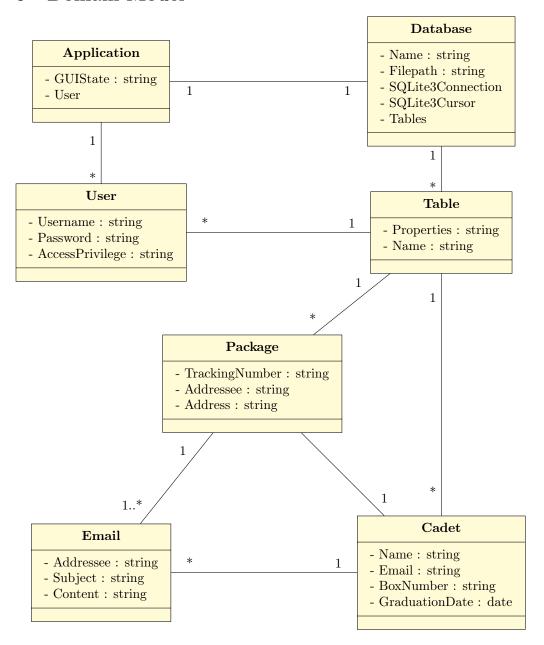- Name

- Email

- Box Number

- Graduation Date

3 Relationships

A single database will contain several tables. A single table will contain several Cadets. A single table will contain several packages. A single table will contain several users. A single cadet can be associated with several packages. A single cadet can receive several emails. A single package can be associated with several emails. A single application can be associated with several users. A single application is associated with at least 3 database tables.

4 Constraints

???

5 Domain Model

Application

- GUIState : string
- User

Database

- Name : string
- Filepath : string
- SQLite3Connection
- SQLite3Cursor
- Tables

User

- Username : string
- Password : string
- AccessPrivilege : string

Table

- Properties : string
- Name : string

Package

- TrackingNumber : string
- Addressee : string
- Address : string

Email

- Addressee : string
- Subject : string
- Content : string

Cadet

- Name : string
- Email : string
- BoxNumber : string
- GraduationDate : date

6 Class Diagram

Database

- Name : string
- Filepath : string
- SQLite3Connection
- SQLite3Cursor
- Tables

+ AddUser(Username, Password, AccessPriviledge)
+ AddPackage(BoxNumber, TrackingNumber)
+ SearchPackages(CadetName, BoxNumber, TrackingNumber)

Application

- GUIState : string
- User

+ Open()

User

- Username : string
- Password : string
- AccessPrivilege : string

+ Login(Username, Password)
+ Logout()

Table

- Properties : string
- Name : string

+ AddEntry(key, value)
+ RemoveEntry(key, value)
+ SearchEntries(fields, query, return)

Package

- TrackingNumber : string
- Addressee : string
- Address : string

Email

- Addressee : string
- Subject : string
- Content : string

+ Send()

Cadet

- Name : string
- Email : string
- BoxNumber : string
- GraduationDate : date