E-Asset Management

CodeFury Presentation 2023 Training Room 13

Presented By:
Team Dev_Octs

Overview

1. **Team Members**
2. **Project Scope**
3. **Application Features**
4. **UI Snapshots**
5. **Designing**
6. **Challenges**
7. **Learnings**
8. **Acknowledgement**

1.Team Dev_Octs

Team Structure And Responsibilities

UI TEAM

- **Rajnandini Singare**
- **Maturu Thrinadh**
- **Roohi Sood**
- **Ishika Murarka**
- **Manas Singh**

Back-End Team

- **Anannya Agrawal**
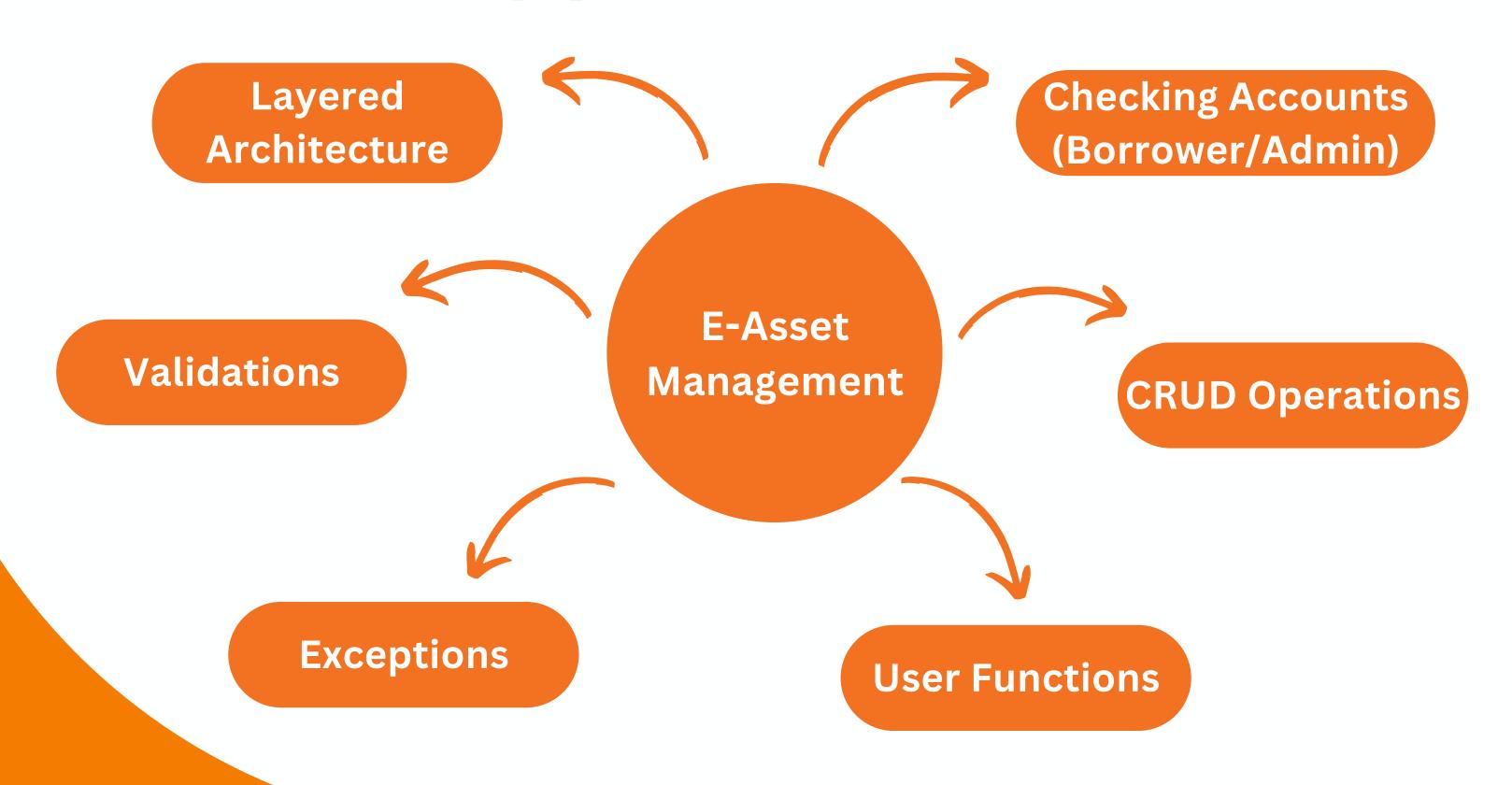- **Kanisha Jain**
- **Souri Yaswanth Krishna**

2.Project Scope

The E-Asset Management system is a web - based application to keep track of several assets that can be borrowed, their availability, their current location, the current borrower and the asset history.

Assets include Laptops, Books, Mobiles and Devices.

The system should also be extensible.

3.Application Features

- Layered Architecture
- Checking Accounts (Borrower/Admin)
- Validations
- E-Asset Management
- CRUD Operations
- Exceptions
- User Functions

Brief Description and details about Application Features

1.CRUD OPERATIONS

DAO LAYER

- **SAVE -**
  - **-** int save(Asset asset)
  - - int save(Borrower borrower)

- **SHOW -**
  - **-** Asset findByAssetId(String assetName)
  - - List<Asset> findAllAssets()
  - **-** Borrower findByBorrowerEmail(Borrower b)
  - - List<Borrower> findAllBorrowers()

- **DELETE -**
  - - boolean deleteByAssetId(String assetName)
  - - boolean deleteByBorrowerEmail(String email)

- **UPDATE -**
  - - Asset updateAccount(Asset asset);
  - - Borrower updateBorrower(Borrower borrower)

2.CUSTOM EXCEPTION

- Exception which will tell that the assets are not present - **AssetNotFoundException**

- Exception which will tell that the borrower is not eligible to borrow assets - **NotEligibleForAssetBorrowing**

DAO EXCEPTION

- Exception which will tell that the datastore is full and now no other element can be inserted **- DataStoreFullException**

- Will tell that the particular record is no present in the datastore - **RecordNotFoundException**

- Will be thrown when credentials entered are wrong - **InvalidCredentialsException**

- For Repeatative data - **DataAlreadyExistsException**

SERVICE LAYER (Borrower) Business methods

- method to search for the availability of asset -
  boolean checksAssetAvailability(Asset asset,Borrower borrower)

- method to check whether the borrower can actually borrow the asset or not -
  public boolean canBorrow(Asset asset)

- method will generate total fine -
  public boolean returnAsset(Asset asset,Borrower borrower);

- **public boolean isLoginSuccess(Borrower b)**

SERVICE LAYER (ASSET) Business methods

- method used to calculate the total fine amount imposed to the borrower
  public double fineImposed(Asset asset)
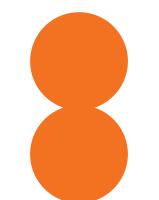
4.Checking Accounts (Borrower/Admin)

Checking all the accounts of Borrowers and admin

5.Validations

- **Validation of frontend Credentials**
- **Validation of TEXT FIELDS**

6.Layered Architecture

- **Model**
- **Controller**
- **JdbcConnection Class**
- **Dao Interface**
- **DaoImpl Class**
- **Service Interface**
- **ServiceImpl Class**
- **Exception Classes**
- **Enum Class**
- **Util Class**
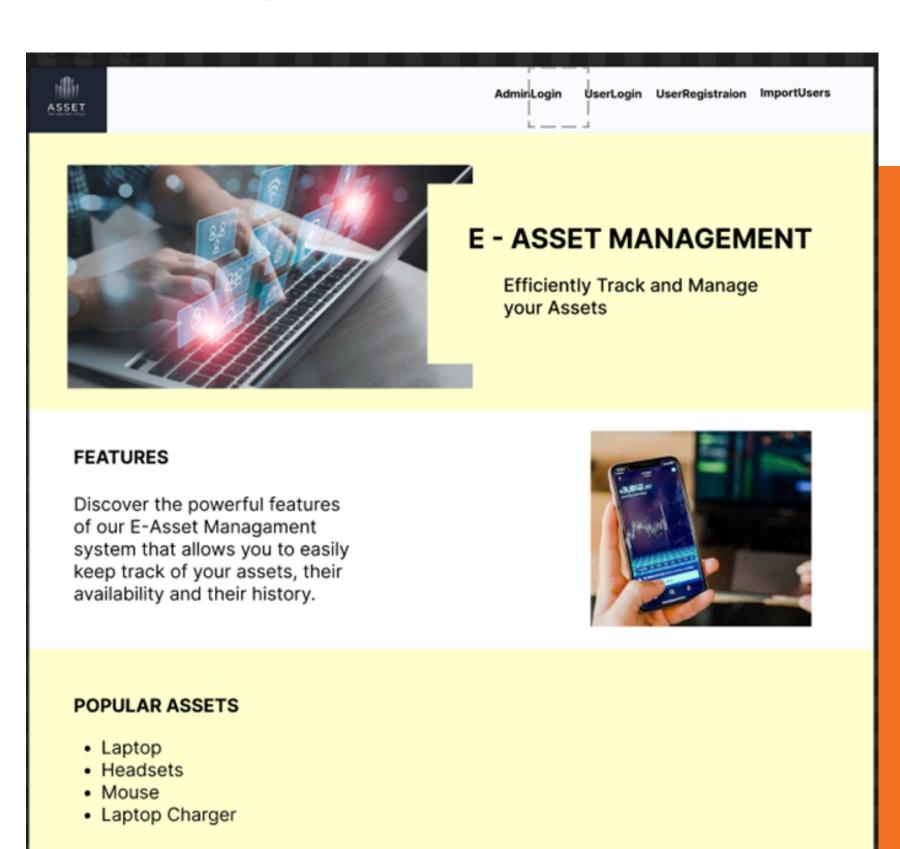
IMPORTANT NOTE -

User Accounts and Assets Checks -

User and Asset checks will always be done on the basis of email(user) and asset(name) instead of user and asset ID because these ID's are autogenerated in the application and so they will always be unique.And hence wont be helpful in identifying the duplicates accounts.
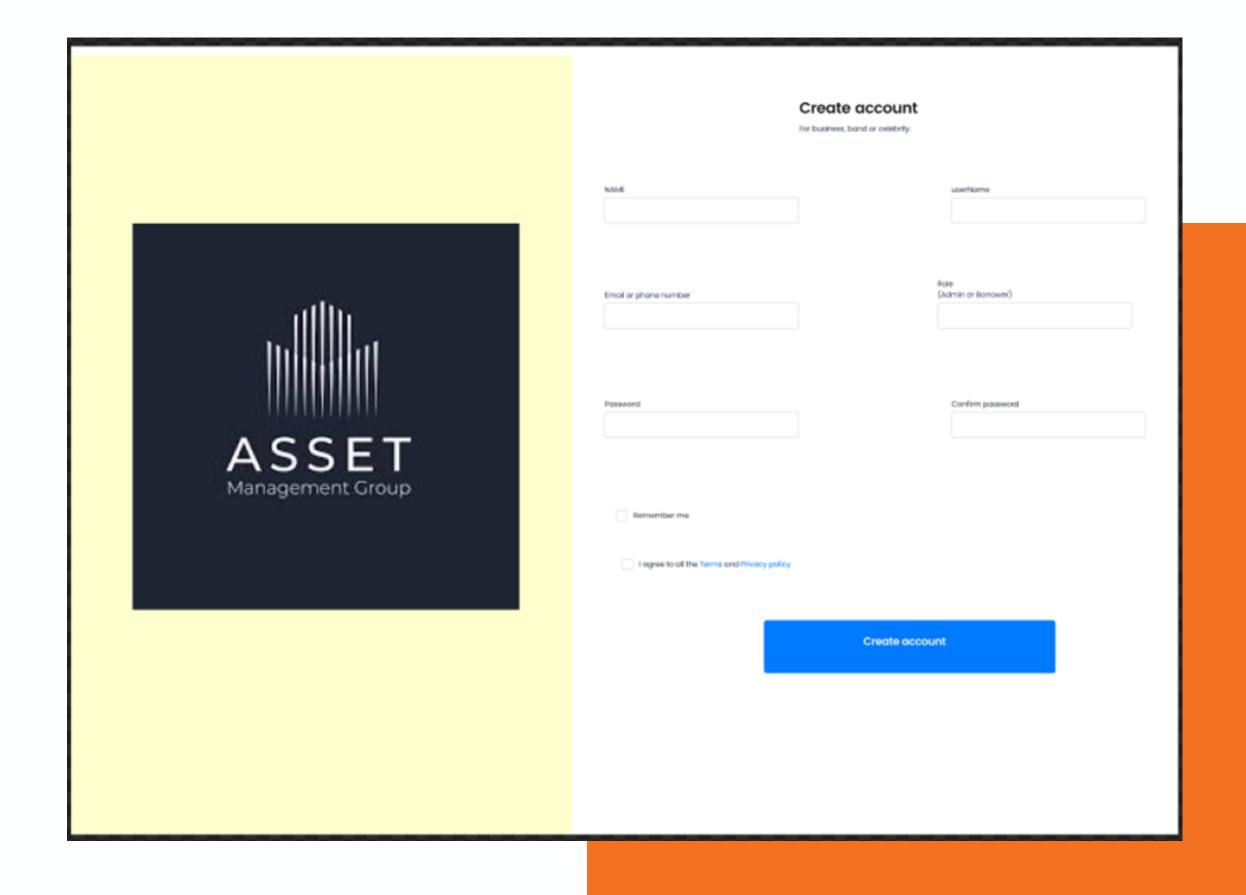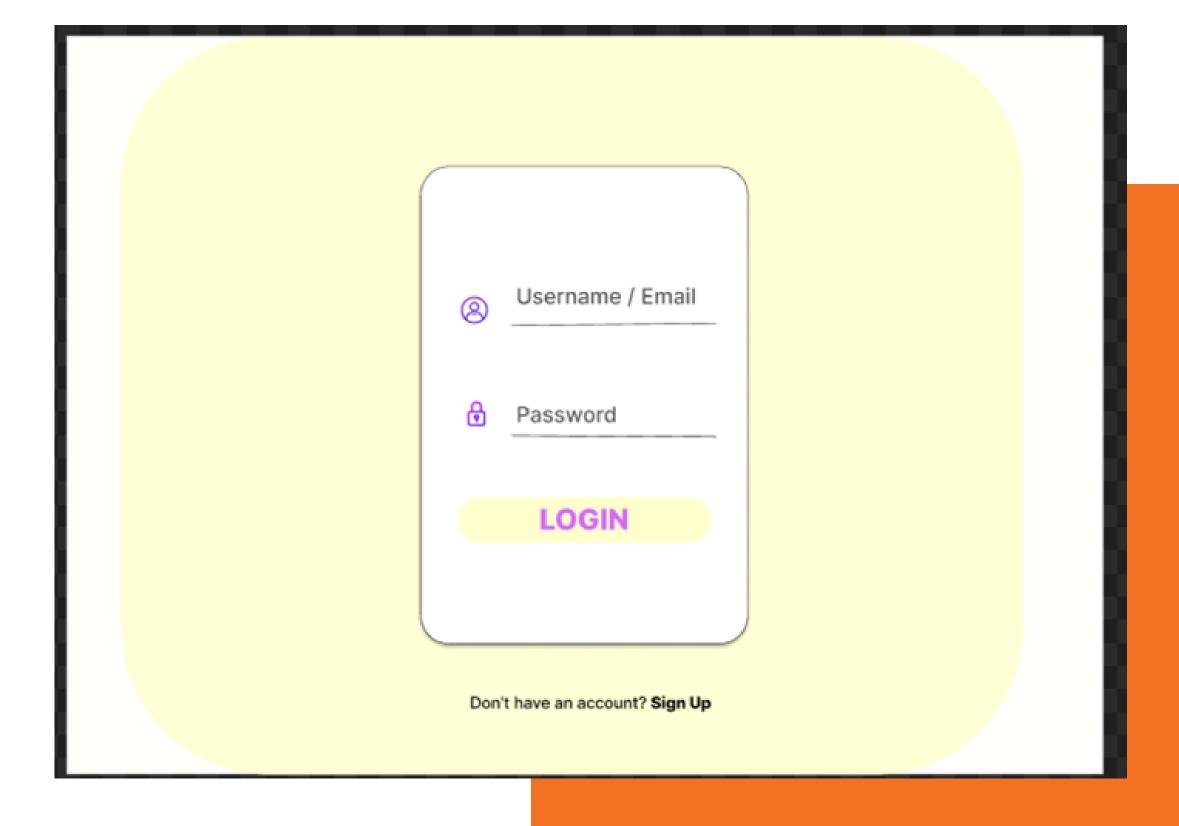
DEV_OCTS

4.UI Snapshots

1.Home Page

2.User Registration

Create account

For business, band or celebrity.

NAME

userName

Email or phone number

Role
(Admin or Borrower)

Password

Confirm password

☐ Remember me

☐ I agree to all the Terms and Privacy policy

Create account

ASSET
Management Group

3.User Login

Username / Email

Password

LOGIN

Don't have an account? **Sign Up**

4.Home Page (Admin)

ASSET

USER INFORMATION

Name - Amit Sinha
Email - amitsinha09@gmail.com
Last loggedon-6th september'23
Time - 13:39 p.m

- **ADD ASSET**

- **OVER-DUE ASSET MANAGEMENT**

USER INFORMATION

Name - Amit Sinha
Email - amitsinha09@gmail.com
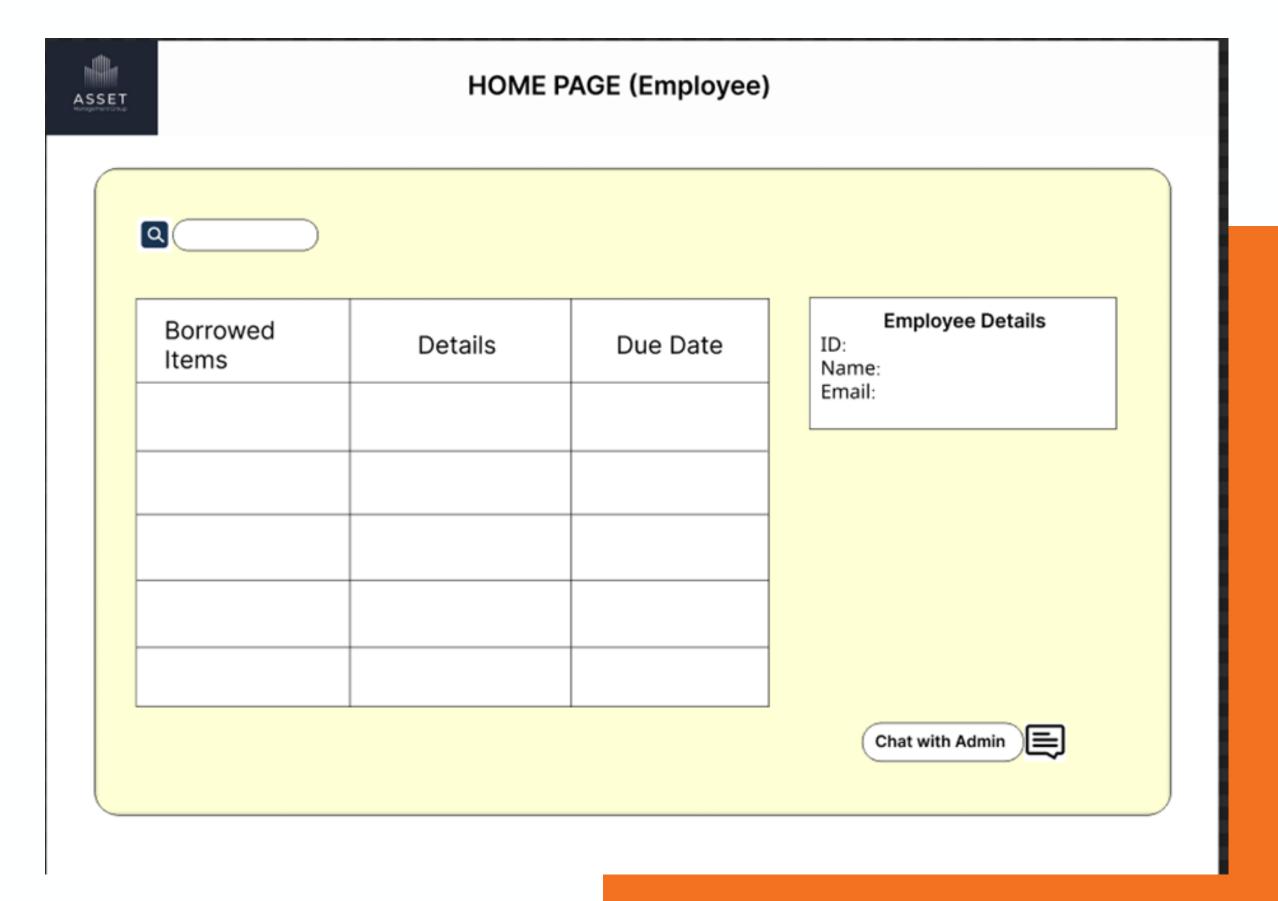Last loggedon-6th september'23
Time - 13:39 p.m

- **ADD ASSET**

- **OVER-DUE ASSET MANAGEMENT**

USER INFORMATION

Name - Amit Sinha
Email - amitsinha09@gmail.com
Last loggedon-6th september'23
Time - 13:39 p.m

- **ADD ASSET**

- **OVER-DUE ASSET MANAGEMENT**

4.Home Page (Employee)

5. Add Asset

6. Admin Login

Username / Email

Password

LOGIN AS ADMIN

Don't have an account? **Sign Up**

5.Designing

Attachments -

Data Flow Diagram - DFD

Class Diagram - UML

Entity Relationship Diagram - ERD

Use Case Diagram

RDBMS Table Structures

6.Challenges

AS A TEAM WHEN WE ALL STRIVED TO COMPLETE THE PROJECT, WE FACED SOME CHALLENGES BUT ALSO MANAGED TO OVERCOME THEM AND GOT SOME GREAT EXPERIENCE

ILLUSION OF AGREEMENT - Over using visual representation of work such as diagrams and models

TESTING AND DEBUGGING - established a testing plan, understand the system you are working on

RIGID ARCHITECTURE - overcome by iterative architecture which allowed us for continuous improvement and adaptation

DIFFICULTY ESTIMATING TIME AND RESOURCES- Enhancing features, bug fixing overcome using fragmenting the tasks into small chunks

7.Learnings

Such type of Team Projects provides valuable opportunities to learn and grow in various aspects of tools, concept understanding, and collaboration with teamwork.

TOOLS

- Tool Proficiency
- Version Control
- IDEs and Text Editors
- Testing,Debugging Tools
- Documentation Tools

CONCEPTS UNDERSTANDING

- Technical Concepts
- Problem Solving
- Algorithm and Data Structures
- Architecture and Design Patterns
- Domain Knowledge

COLLABORATION

- Communication Skills
- Project Planning
- Peer Code Review
- Remote Collaboration
- Domain Knowledge

8.Acknowledgement

Dear LEADS,

We "DEV_OCTS" wanted to take a moment to express our heartfelt gratitude for the valuable learning experiences you've provided through the CODEFURY CONTEST (team projects) during our training.

These projects have been instrumental in enhancing not only our technical skills but also overall growth as a learner . They have allowed us to put into practice the theoretical knowledge we've gained during these training days, bridging the gap between theory and real-world application.

Your guidance, mentorship, and belief in our abilities have been pivotal in making these projects a success.

The experience of working collaboratively with our Collogues has been both challenging and rewarding, and I believe it will serve as a strong foundation for our future endeavors.

We really genuinely appreciate the effort and dedication you've put into making our learning journey meaningful and practical.

Warm regards, Team "DEV_OCTS"

THANKYOU

CODEFURY 2023

Presented By:
DEV_OCTS