Introduction

Please develop web based applications using ReactJS, REST API using Java/Go/Python/JS, Database MySQL/PostgreSQL given below requirements. Please upload the project to your GitHub repository (can be a separate or different project) with ".README.md" to explain about the project, tech-stack, database design (utilise informations from input and output displayed in UI)and step-by-step how to run in local and/or Dockerfile to run the project. Feel free to use any framework and library. You can do assumptions/improvement if any requirement here was not clear enough.

Features

1. Login

Corporate Account No. Corporate Account No. **User ID** User ID **Login password** Login password 👁̶ **Login** Without Account? **Register Now >**	**Front End Requirement:** - Password can visible when click "eye" icon - Please analyse and implement success/failure state after click Login Button and Register Now link **API Requirement:** - API for Button Login: validate if authenticated or not, if authenticated return Access Token, Corporate Information, User Information. *Note: using strong password encryption/hashing in the database is a plus point.*

2. Register

Corporate Account No.

```
Corporate Account No.
```

Corporate Name

```
Corporate Name
```

User ID

```
User ID
```

User Name

```
User Name
```

Role

```
Role                                          ⌄
```

Phone No.

```
+62 ⌄   Phone No.
```

Email

```
Email
```

Verification Code

```
Verification Code              Send OTP Code
```

```
               Submit
```

Already have an account?   Login Now >

Front End Requirement:
- All field is required
- Role is dropdown (options: Maker, Approver)

Role

```
Role                                          ⌄
```
```
Maker
```
```
Approver
```

- Phone number area is dropdown
- Validate phone numeric
- Validate email format
- Please analyse and implement success/failure state after click Submit Button
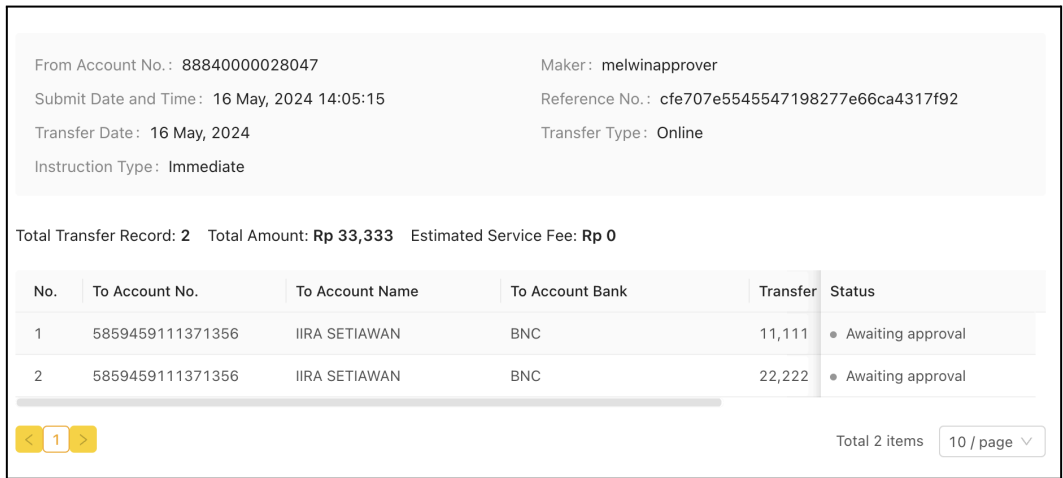
**API Requirement:**
- API Send OTP Code: generate six random unique numbers
- API Submit Registration
    - All field is required validation
    - Corporate Bank Account Number is unique validation
    - User ID is unique validation
    - Validate phone numeric
    - Validate email format
    - Validate OTP Code

*Note: sending OTP to email is a plus point.*

## As Maker Role:
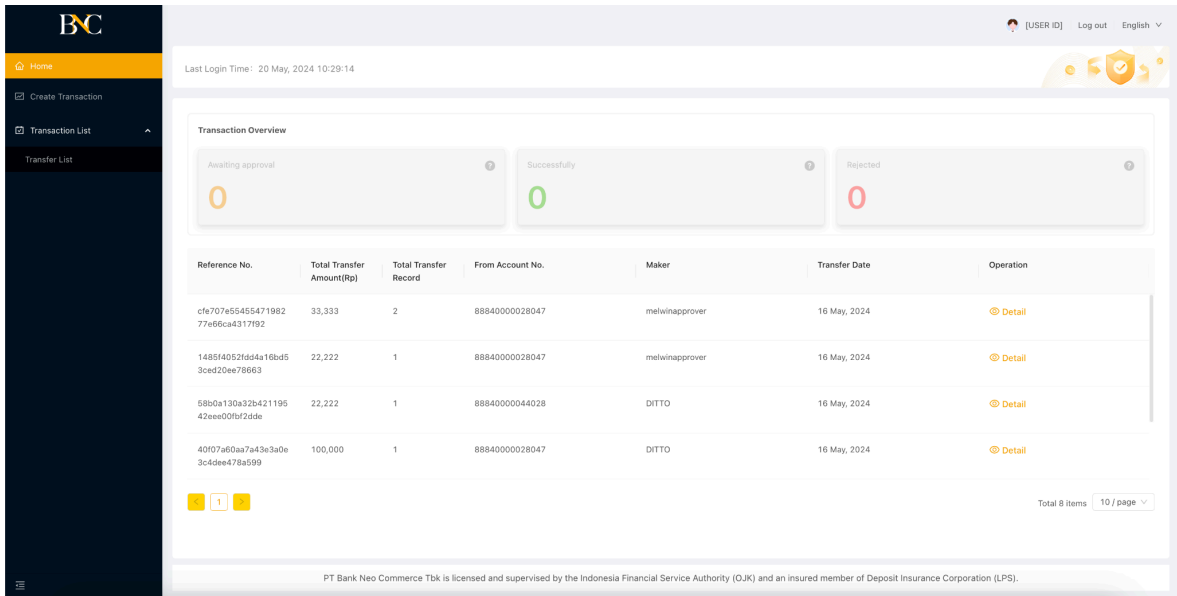


## Popup Detail



**Front End Requirement:**

- User can view total transaction for each status (Awaiting Approval, Approved, Rejected)
- User can view the transactions that status is "Awaiting Approval" with pagination

    List Column:

    - Reference No.
    - Total Transfer Amount(Rp)
    - Total Transfer Record
    - From Account No.
    - Maker
    - Transfer Date
    - Operation (fixed/stick to right)
    - User can view detail data in popup

        List Column in Table:

        - No
        - To Account No
        - To Account Name
        - To Account Bank
        - Transfer Amount
        - Description
        - Status (fixed/stick to right)

**API Requirement:**

- API Get Transaction Overview
- API Get Transaction List (for Maker including all status: Awaiting Approval, Approved, Rejected)
- API Get Transaction Detail

*Note: implement server side pagination is a plus point*

**As Approver Role:**



**Popup Detail**
Same as Maker

**Front End Requirement:**

Same as Maker, but with additional Operation for Approver role:
- User can Approve or Reject the transaction
  - When click Approve or Reject, there is popup confirmation, upon user confirmation call API Audit Transaction
  - After Approve or Reject, the data in homepage should be reloaded (only the data is reloaded, not whole page/window)

**API Requirement:**

Same as Maker, but with additional:
- API Get Transaction List (for Approver only get Awaiting Approval status)
- API Audit Transaction, set transaction status to Approved or Rejected.

*Note: implement server side pagination is a plus point*

## 4. Create Transaction (Maker role only)



**Show/Hide Transfer Date and Transfer Time when choosing Standing Instruction:**



**Front End Requirement:**

- All field is mandatory
- Link download template will provide user with .csv file containing columns: to_bank_name , to_account_no, to_account_name, transfer_amount
- Instruction Type is single option (like radio button), when choosing "Standing Instruction" fields will be shown: Transfer Date (date picker, option later than today), Transfer Time (time picker); when choosing "Immediate" option the two fields will be back to hidden
- Click button Next will validate Total Transfer Record and Total Transfer Amount should be matched with data uploaded, when passing validation go to the next step
- Confirmation Page, upon user confirmation call API Submit Batch Transfer, then show Complete page

**API Requirement:**

- API Upload Transaction (.csv), validate csv columns should contains, as sequence, as format: to_bank_name (numeric), to_account_no (numeric), to_account_name, transfer_amount (decimal)
- API Submit Batch Transfer: when Maker submit, the status is Waiting for Approval; otherwise when Approver submit, the status will be automatically Approved (final status)

*Note: using multi-threading to do validation and/or batch insert to database is a plus point.*

## Confirmation Page:

**Create Transaction**

Total Transfer Record： 2

Total Transfer Amount： Rp 140,000

From Account No.： 88840000028047

Instruction Type： Immediate

**Confirm**

## Error Upload:

Choose Your Template
Only xls or xlsx format is support

⤓ Download Template

📎 Other_bank_transfer.xls

> After detection, there are **2 transfer** record and **1 records** error no match account name query by issuing bank. Please reupload your template

\* Instruction Type

☐ Immediate      ☐ Standing Instruction

\* Total Transfer Record

Please Input

\* Transfer Amount

Rp | Please Input amount

**Next**

## Success Upload:

Choose Your Template
Only xls or xlsx format is support

⤓ Download Template

📎 Other_bank_transfer.xls

> After detection, there are **2 transfer** record , the total transfer amount is **Rp800.000.000**

\* Instruction Type

☐ Immediate      ☐ Standing Instruction

\* Total Transfer Record

Please Input

\* Transfer Amount

Rp | Please Input amount

**Next**

# Complete Page

BNC

- Home
- Fund Transfer ⌄
- Transaction List ⌄

**Create Transaction**

✅

## Submitted successfully, waiting for review

The transfer application will be invalidated on 23:59, please notify approver for review in time

Total Transfer Record：  2

Total Transfer Amount：  Rp 140,000

From Account No.：  88840000028047

Instruction Type：  Immediate

Transfer Type：  Online
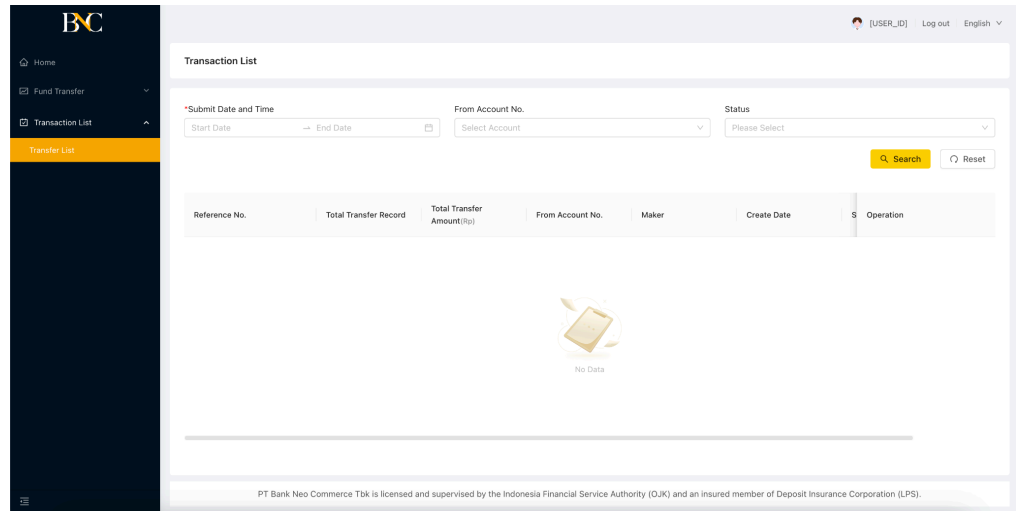
Reference No.：  ee9d43dc3daf4186ba667632924e2913

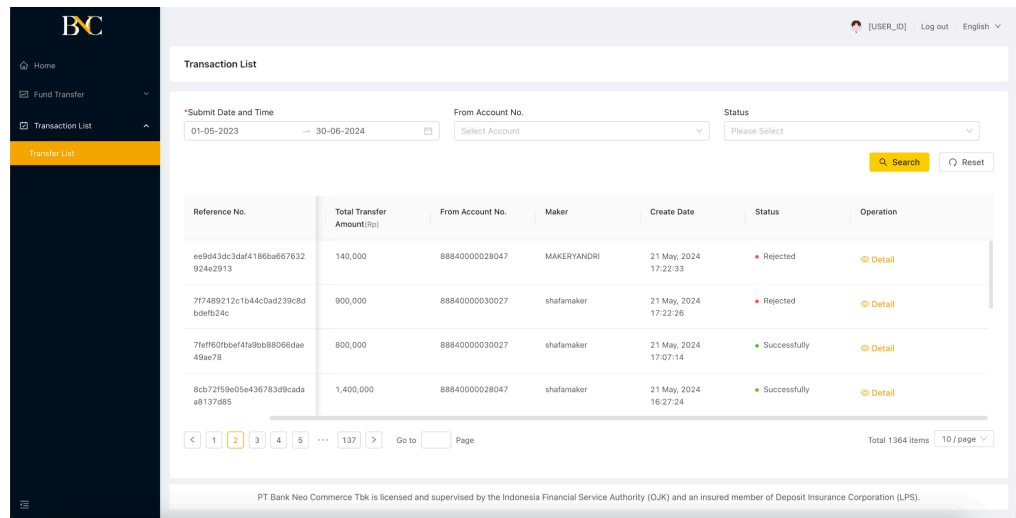**Transfer One More Time**   Back Home

## 5. Transfer List (nice to have)

**Empty State**



**Data Shown**



**Front End Requirement:**

- User can view the transactions (All Statuses) with pagination
  List Column:
  - Reference No.
  - Total Transfer Amount(Rp)
  - Total Transfer Record
  - From Account No.
  - Maker
  - Create Date / Transfer Date
  - Operation (fixed/stick to right)
  - User can filter the transaction
  - User can view detail data in popup
    List Column in Table:
    - No
    - To Account No
    - To Account Name
    - To Account Bank
    - Transfer Amount
    - Description
    - Status (fixed/stick to right)

**API Requirement:**

- API Get Transaction List
- API Get Transaction Detail

**Popup Detail**

From Account No.: 88840000028047

Submit Date and Time: 16 May, 2024 14:05:15

Transfer Date: 16 May, 2024

Instruction Type: Immediate

Maker: melwinapprover

Reference No.: cfe707e5545547198277e66ca4317f92

Transfer Type: Online

Total Transfer Record: **2**    Total Amount: **Rp 33,333**    Estimated Service Fee: **Rp 0**

| No. | To Account No. | To Account Name | To Account Bank | Transfer | Status |
|---|---|---|---|---|---|
| 1 | 5859459111371356 | IIRA SETIAWAN | BNC | 11,111 | ● Awaiting approval |
| 2 | 5859459111371356 | IIRA SETIAWAN | BNC | 22,222 | ● Awaiting approval |

< 1 >

Total 2 items    10 / page ⌄

## 6. Log Out

Invalidate the access token, redirect the user to the Login page.