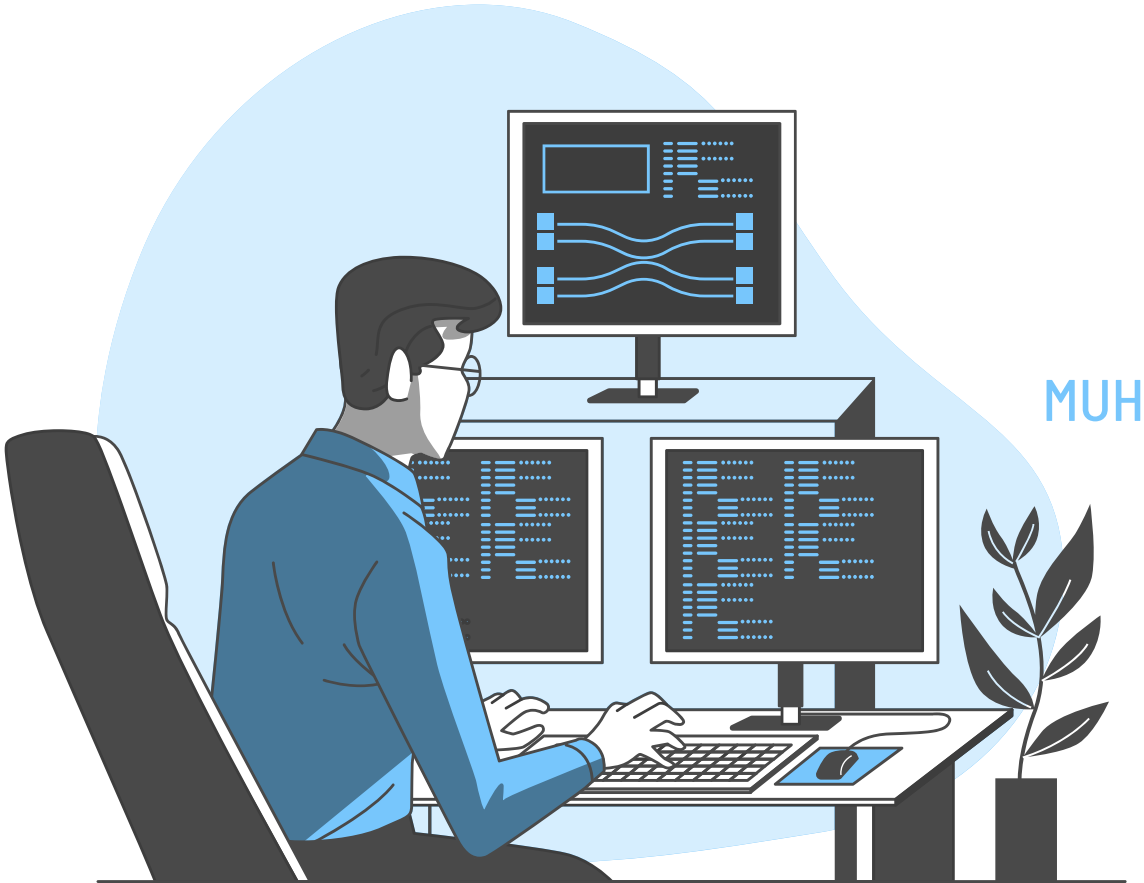


PORTFOLIO

MUHAMMAD RIFKY ZENA YUDHA

Computer Science Fresh Graduate
Software and Mobile Testing Enthusiast
Indie Game Development Hobbyist

Last Updated: August 2024

About Me

I am a Computer Science graduate from Bina Nusantara University with a strong passion for software testing and indie game development. My experience includes a hands-on internship at Bank BNI, where I contributed to the testing and documentation of various mobile applications. Alongside my professional pursuits, I enjoy working on indie game projects, combining my technical skills with creativity. I am eager to continue growing in the QA field while exploring opportunities to bring innovative game ideas to life.

Technologies

Programming Languages

C#, HTML, CSS, Javascript

...

Tools

Unity, Visual Studio, Microsoft Office, Postman

...

Certifications

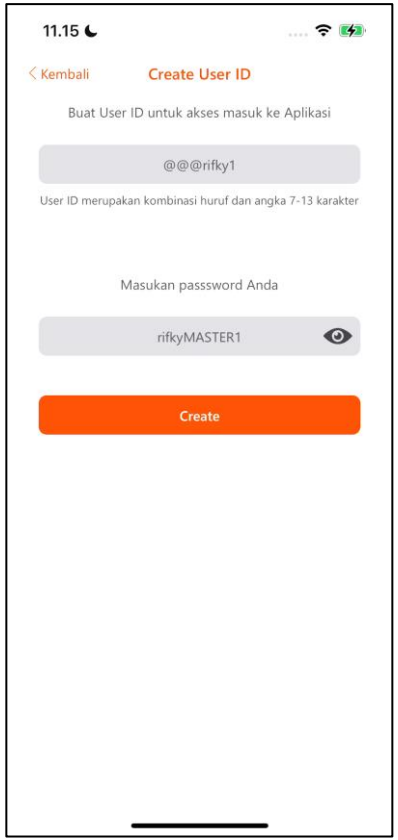
Udemy – Complete Software Testing Bootcamp

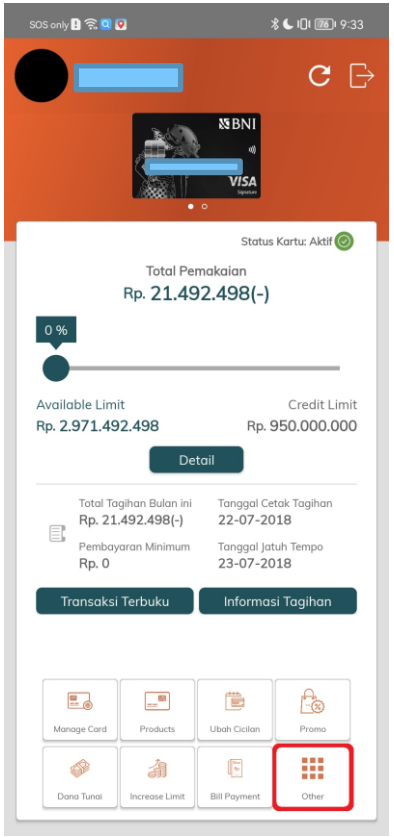
Udemy – Complete C# Unity Game Developer 2D

BUMN Magenta – Program Magang Mahasiswa Bersertifikat (PMMB)

...

Internship Task 1 – Testing BNI Credit Card





BNI Credit Card is an application used by BNI customers to manage their credit card accounts. There are 3 phases of step testing carried out to find bugs/defects/errors in the application, starting from the Registration, Login, and Main Page menu steps. The BNI Credit Card application was tested on 3 types of mobile devices, namely Android, Huawei, and IOS.

Testing is done to test the integration of the entire system before the update for the implementation of the User ID feature during registration and when customers access the application.

Internship Task 1 – Testing BNI Credit Card

8.2.5 Login : ORG 200

8.2.5.1 Login user ID tidak sesuai

8.2.5.1.1 Preparations

- Sudah meregistrasikan Kartu Kredit BNI Corporate / Business untuk membuat akun pada device.
- User ID dan password yang terdaftar pada device.

8.2.5.1.2 Exit Acceptance Criteria

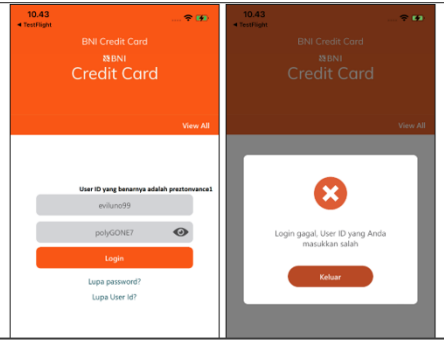
- Muncul notifikasi dan login gagal

8.2.5.1.3 Procedure

- Buka aplikasi Mycard setelah melakukan registrasi akun
- Input User ID salah
- Input password benar
- Klik login

8.2.5.1.4 Output

8.2.5.1.4.1 Mycard



8.2.7.70 Increase limit tanpa menginput limit yang diinginkan (permanen)

8.2.7.70.1 Preparations

- Sudah mendaftarkan kartu kredit BNI menjadi akun pada device dan melakukan login
- Foto NPWP dan foto slip gaji

8.2.7.70.2 Exit Acceptance Criteria

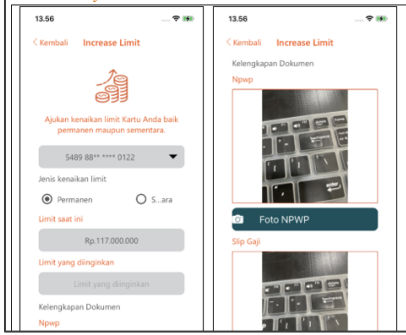
- Increase limit gagal

8.2.7.70.3 Procedure

- Masuk ke menu increase limit
- Pilih nomor kartu
- Tidak menginput limit yang diinginkan
- Pilih jenis kenaikan limit permanen
- Input foto NPWP
- Input foto slip gaji
- Klik persetujuan syarat & ketentuan
- Klik submit

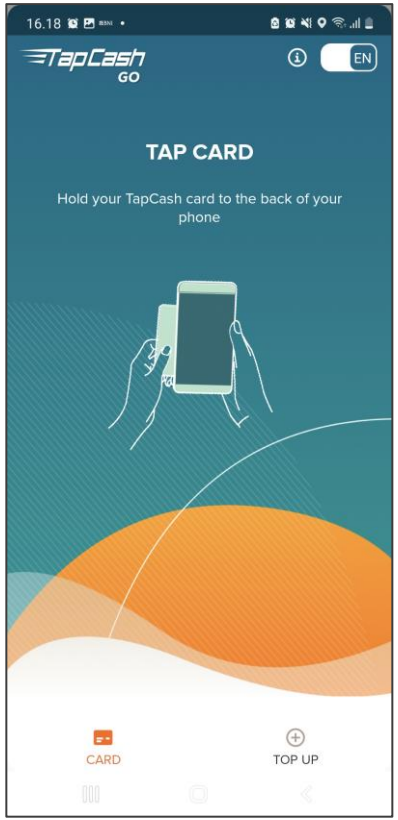
8.2.7.70.4 Output

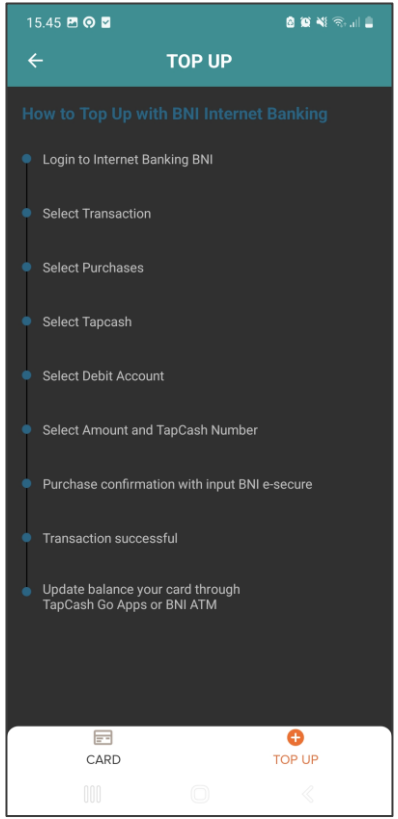
8.2.7.70.4.1 Mycard



The Testing document has a lot of supporting information, such as Business Requirements, Document Authorization, Test Plan, Test Type, before then listing the attachments which are divided into Preparation, Exit Acceptance Criteria, Procedure, and then output.

Internship Task 2 – BNI TapCash Go Testing





TapCash Go is a BNI application used by Electronic Money card users to update their balance. Currently, the TapCash Go application can be used by iOS, Huawei, and Android users equipped with two languages, Indonesian and English.

The TapCash Go application still does not have a Dark Mode feature, so a series of tests were carried out to test the Dark Mode feature before launching to the wider user community.

Internship Task 2 – BNI TapCash Go Testing

Testing & Defect Tracker (Tapcash Go 41168 41167) .XLSX

File Edit Tampilan Sisipkan Format Data Alat Bantuan

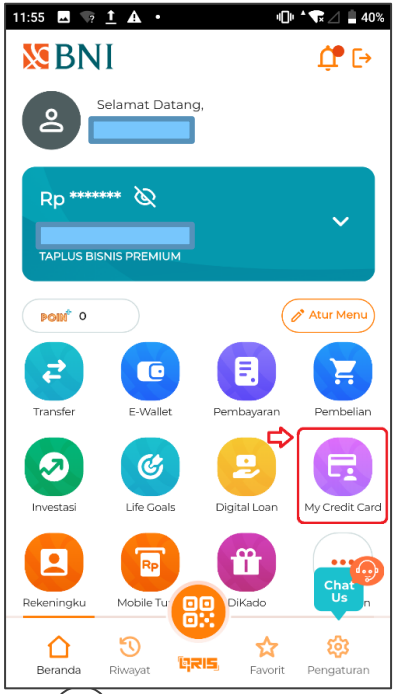
Scenario	Android Indo	Android Ingg	Huawei Indo	Huawei Ingg	Expected Indo	Expected Ingg	Date Tanggal Temuan	Date Tanggal Selesai			
Alert Update Version	y	y	y	y	Bahasa Indonesia : Pembaruan Tersedia Versi terbaru dari TapCash GO telah tersedia. Silakan lakukan update ke versi 2.7 sekarang	Bahasa Inggris : Update Available A new version of TapCash Go is now available. Please update to version 2.7 now	07/24/2023	08/14/2023	Dev Note :	sesuai	
Update Balance Menggunakan kartu Expired	y	y	y	y	Bahas indonesia : Kartu TapCash telah Expired Jika masih terdapat saldo silahkan lakukan penarikan saldo di cabang terdekat dan beli kartu TapCash terbaru	- Bahasa inggris :TapCash card has expired Please withdraw your TapCash at nearest BNI branch if any available balance remaining and purchase the new version of the TapCash.	07/24/2023	07/25/2023		sesuai. FIXED	x
Update Balance versi V6 Kebawah	y	y	y	y	Bahasa Indonesia : Versi kartu Tapcash anda sudah tidak berlaku Jika masih terdapat saldo silahkan lakukan penarikan saldo di cabang terdekat dan beli kartu TapCash terbaru	Bahasa Inggris : Your tapcash version is outdated Please withdraw your TapCash at nearest BNI branch if any available balance remaining and purchase the new version of TapCash	07/24/2023	02/08/2023		sesuai. FIXED	
Tap lost contact pada update balance	y	y	y	y	Bahasa indonesia : Kesalahan Membaca Kartu Anda. Pembacaan tidak sempurna. Mohon ulangi.	Bahasa inggris : Error reading your card. Card reading uncompleted yet. Please try again	07/24/2023	08/10/2023			
Update balance menggunakan kartu bank lain	y	y	y	y	Bahasa indonesia : Update gagal bukan kartu BNI	Bahasa inggris : Update Failed Not BNI Card	07/24/2023	07/26/2023			
					Bahasa indonesia : Kartu tapcash telah expired. Jika masih terdapat saldo	Bahasa inggris : Tapcash card has expired. Please withdraw your TapCash at nearest BNI					

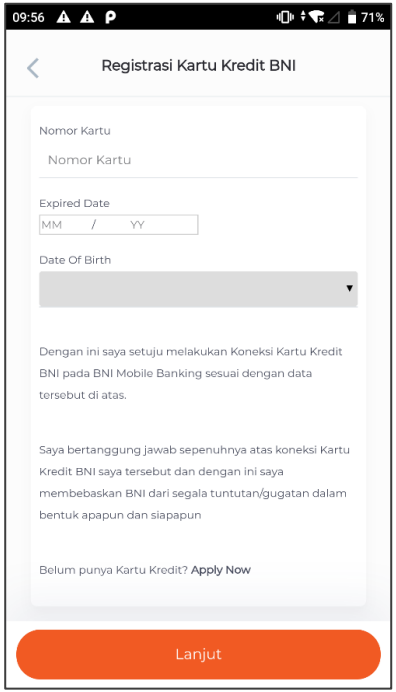
Ket :
x Tidak sesuai
y Sesuai

PROJECT DETAILS | TEST CASE SCENARIO (Dark Mode) | Scenario Normal & Dark Mode | TRACEABILITY | DEFECT TRACKER | Temuan Test | Temuan UAT

Test Case Scenario is done for all features, functions, and pages contained in TapCash Go starting from the Main Screen, Top Up Process, Inquiry, Balance Update, to Error Message. In addition to ensuring the features work as expected, typos and visual bugs are also recorded and reported to the development team.

Internship Task 3 – Response 403 of Service Inquiry





There is an increased response with code 403 on the monitoring dashboard for the MyCredit Card feature in BNI Mobile Banking, specifically on the "Inquiry by NIK" endpoint. Every time a user clicks on the My Credit Card feature, the system will check whether the user has a digital credit card that has not been activated.

This 403 code increase occurs when the user's NIK data is not found, so the My Credit Card menu display will be different. To prevent an increase in errors and excessive resource usage, it is necessary to test and adjust the Cardlink Service regarding this 403 code response.

Internship Task 3 – Response 403 of Service Inquiry

POST http:/[redacted]/inquiryByNik

Params | Authorization | Headers (9) | Body | Pre-request Script | Tests | Settings

none | form-data | x-www-form-urlencoded | raw | binary | GraphQL | JSON

```
1 {
2 "nik": "[redacted]
3 "dob": "[redacted]
4 }
```

[redacted] Database: mycardmbank | Table: mycard_service_log | Data | Query*

mycardmbank.mycard_service_log: 61,045 rows total (approximately), limited to 1,000 — Next | Show all | Sorting (1) | Columns

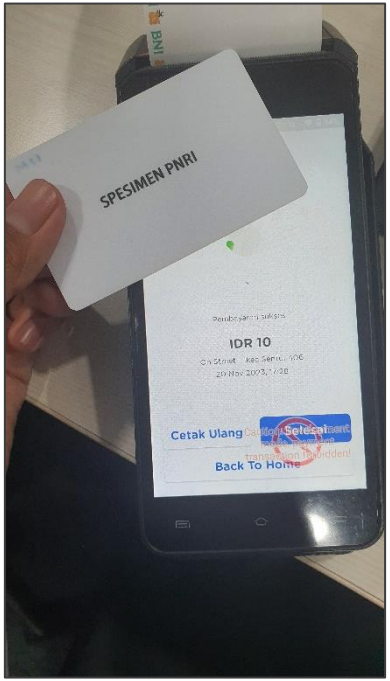
id	request_method	request_address	request	response	date
61,172	Inq By NIK	192.168.151.65	{nik=3271********0003, dob=***...	{code=200, data=[{"hpNumber":"08211114590...	2023-10-10 16:56:30
61,171	Inq By NIK	192.168.151.65	{nik=3271********0003, dob=***...	{"request":200,"result":"{"SOAC002":{"BNSOA_...	2023-10-10 16:56:30
61,170	Inq By NIK	192.168.151.65	{nik=3271********0003, dob=***...	{"request":200,"result":"{"SOAC002":{"BNSOA_...	2023-10-10 16:56:30

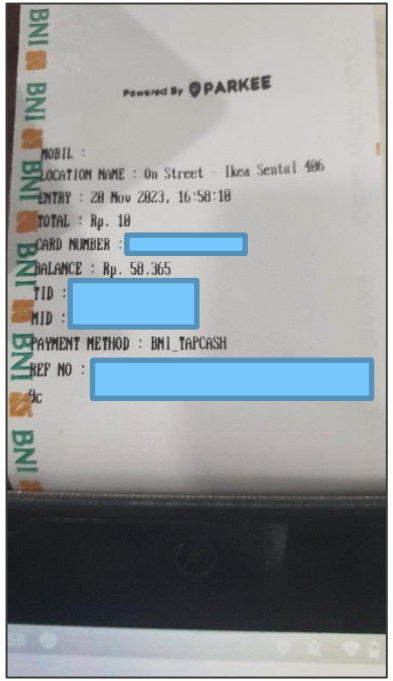
```
            "hpNumber": "0
            "blockCode": "
            "org": "100",
            "homePhone": "
            "customerNumbe
            "type": "070",
            "expiryDate":
            "nik": "327101
            "postingFlag":
            "dob": "1982-0
            "reffNumber":
            "creditLimit":
            "cardNumber":
        }
    ],
    "message": "Inquiry Sukses"
}
```

```
2023-10-02 13:28:27.543 [http-nio-46000-exec-3] INFO  i.co.bni.cgt.lib.utilities.ApiLogger - requestId|b3546aa5-5210-4f66-a6ee-61404ab69a4d|remoteAddr|10.70.131.219|host|192.168.150.226:46000|date|2023-10-02 13:28:27.000|method|POST|url|/inquiryByNik|userAgent|PostmanRuntime/7.33.0|contentLength|53|contentType|application/json|statusCode|200|responseTime|152 ms|
```

When making an inquiry, if the data is found then the response will show a response of 200 in the Postman application the JSON data will also appear, as well as in the HeidiSQL application.
If it doesn't exist then the result will show a response of 403.

Internship Task 4 – EDC Reader Parkee Testing

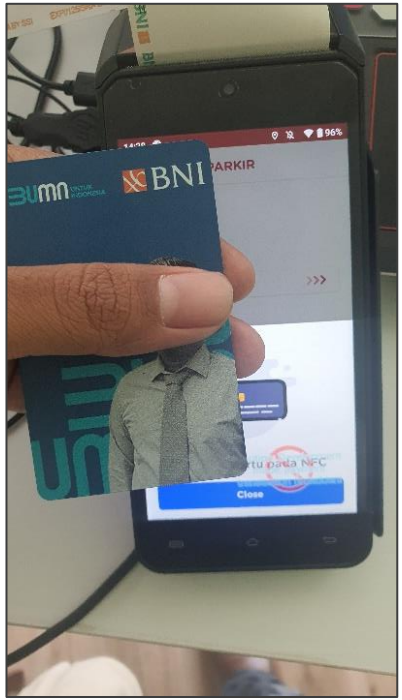


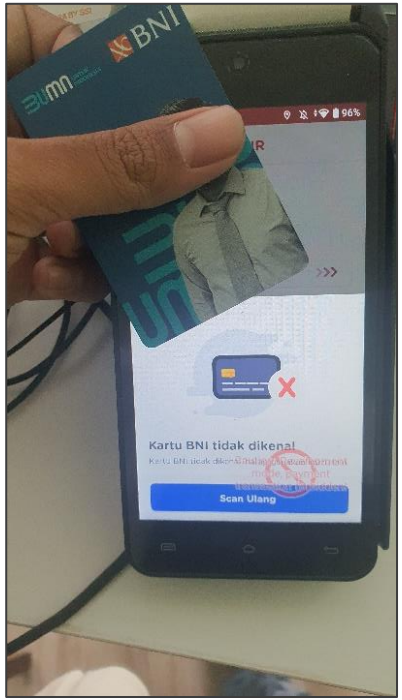


PT Inovasi Anak Indonesia (Parkee) is BNI's new partner working as an integrator for TapCash acceptance at several parking lots. This partner uses three types of readers for payment, which require special certifications and specifications in order to read TapCash cards, with the Ingenico EDC equipped with a touchscreen as one of the main devices.

A series of tests were conducted on these machines, ranging from normal transactions to transactions with special cards such as MSI and Soundrenaline, as well as abnormal transaction scenarios such as insufficient balance. Testing aims to ensure that the application inside the reader can function as expected, such as deducting the balance on a successful transaction or failing the transaction if the card expires.

Internship Task 4 – EDC Reader Parkee Testing

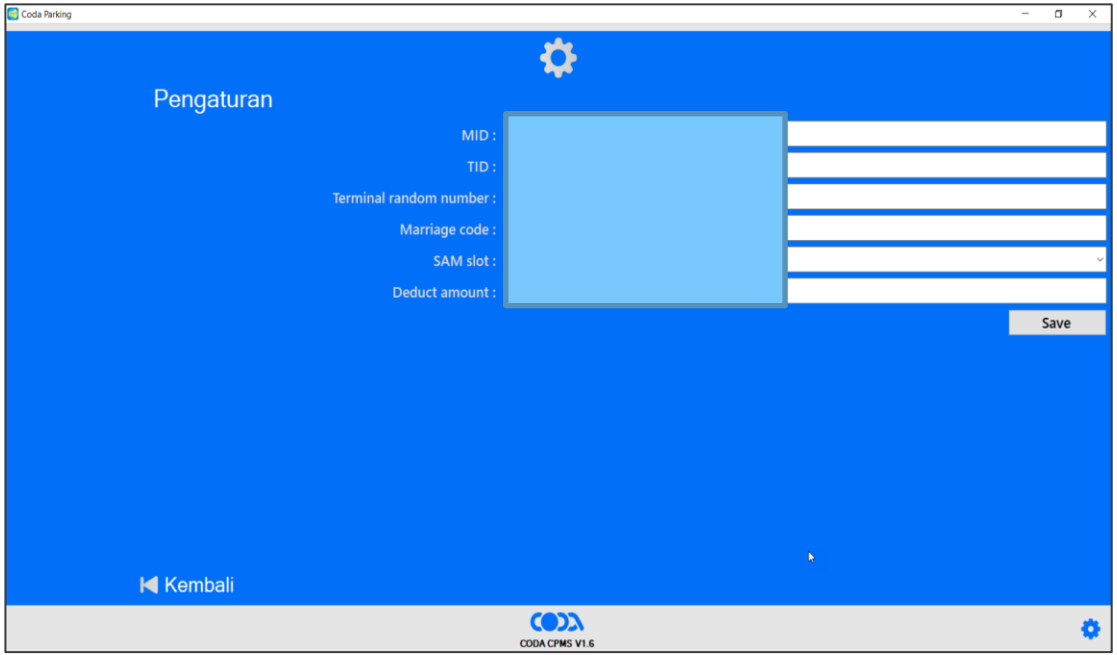




In addition to checking the test results from the application screen or proof of transaction, balance checking can be done using the Tapcash Go application.

For example, there is a transaction test using a different environment card. The different environment card in question is a TapCash card that is already in production and cannot be used for testing. If we use a production card to make transactions on this device, the transaction will fail and the balance will remain the same.

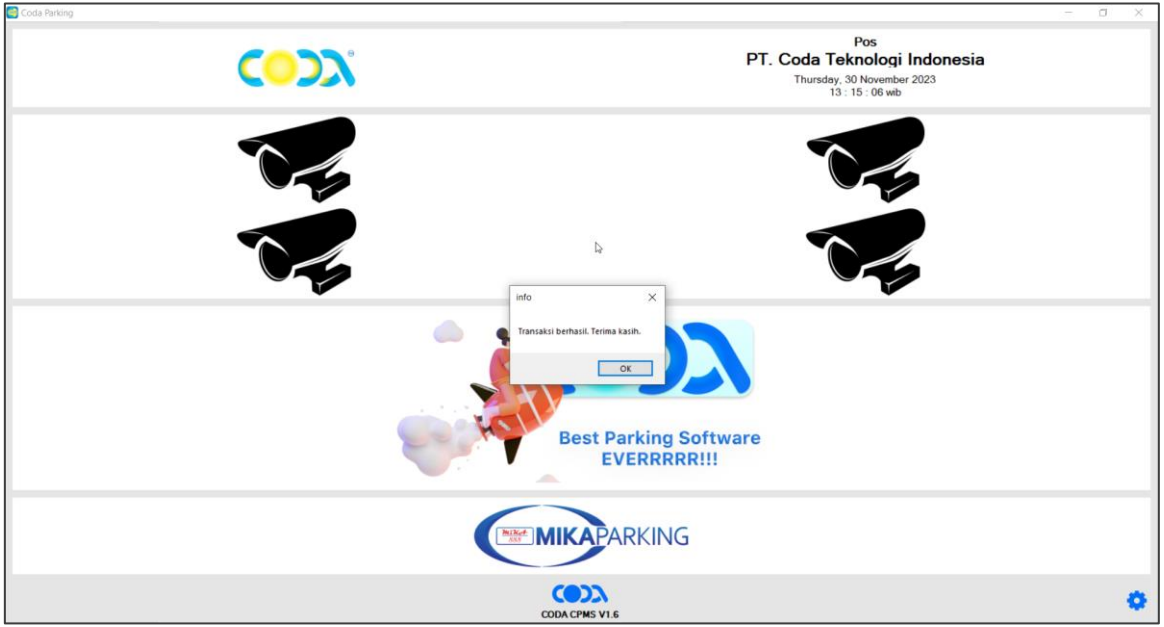
Internship Task 5 – RFID Card Reader MikaParking Testing

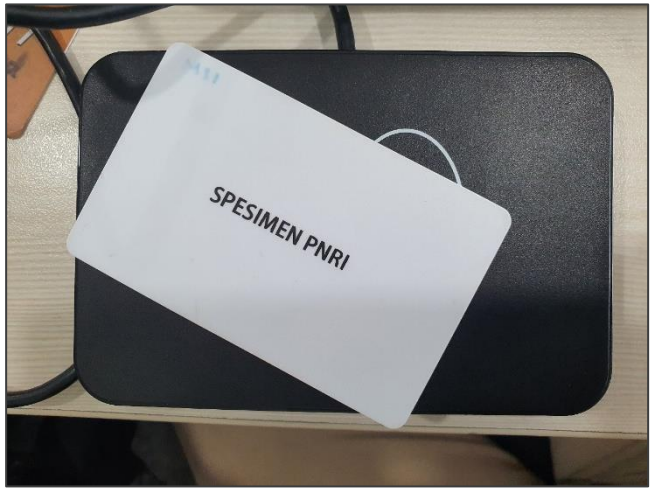



```
Log Time : 30-11-2023 13:14:38.261
Send debit command :
Command : 90-34-00-00-25-03-12-01-14-03-82-BA-BB-BA-4F-F9-BC-FE-88-EA-E6-05-3F-AC-08-E3-F7-1A-BE-09-66-91-D3-D8-00-00-00-00-00-00-00-00-18
 SW1 SW2 = 90 00
Response: E6-D1-CB-63-A5-35-2B-D9-4E-79-38-3F-D8-26-3F-DE-5F-29-5A-D5-17-72-EA-79

Log Time : 30-11-2023 13:14:38.450
Verify debit receipt command :
Command : 80-11-0D-01-38-75-46-22-00-00-12-27-88-75-46-22-00-00-12-27-96-92-9D-D6-4C-20-5C-4C-E8-E0-7E-17-68-6F-21-55-82-E6-D1-CB-63-A5-35-2B-D9-4E-79-38-3F-D8-26-3F-DE-5F-29-5A-D5-17-72-EA-79
 SW1 SW2 = 90 00
Response: 00-E3-E9-BA-BD-D2-E6-A7-B7-3B-74-00-00-18-00-00-11-00-00

Log Time : 30-11-2023 13:14:38.680
Create settlement file
Settlement file created

Log Time : 30-11-2023 13:14:38.693

{
 "DeductAmount": 5,
 "BalanceBefore": 58350,
 "BalanceAfter": 58345,
 "SettlementData": "D017546220000122796 01FFFFFB36629A3D120014010000E3EE00E3E900001800001100 00BABDD2E6A7B73B7400000000000600271035FE6CF71200140101FFFFFB365EBDE1000000000000000000007E73AABC9B3B9FE1000017000011000003510000000792 56",
 "StartTime": "2023-11-30T13:14:37.4263756+07:00",
 "EndTime": "2023-11-30T13:14:38.6938902+07:00"
}
```


Another Transaction Device from PT Parkee that needs to be tested is the RFID Card Reader. Before starting the transaction, the built-in application on the device needs to be set-up first by inserting the SAM Card (Secure Access Module) and inputting the required activation code such as Marriage code. The device and application that has been setup with the SAM Card will automatically record every transaction log in a .txt file.

Internship Task 5 – RFID Card Reader MikaParking Testing





Testing carried out on this device and application for parking payment is in the form of a system integration test. To make a transaction, the TapCash card is simply placed on the card reader. The application will automatically display a notification if the transaction process fails or succeeds.

Let’s keep in touch!

x.com/niravoleander

rifkyzena26@gmail.com

github.com/rifkyzena