PROJECT REPORT

iGO

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Submitted at



Github:

https://github.com/yash1088/SOEN-6461

By Team M

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Problem 6

1.1 High-Level Solution Domain Model

Scenario of purchasing the ticket of Metro:-

User A wishes to book a ticket from TVM.

User A presses the Purchase Tickets Button.

User A then gets the different options for purchasing the tickets and for selecting the number of fares.

User A then selects a different payment method through which they can purchase the ticket.

Once the payment is successfully made User A has an option to choose the type of the invoice he wants.

Scenario of recharging Metro-Card:-

User A wants to recharge a metro card.

User A presses the Metro-card Recharge option.

User A then selects the recharge amount of the Metro-Card.

User A then selects a different payment method through which they can recharge Metro-Card.

Once the payment is successfully made User A has an option to choose the type of the invoice he wants

Ticket Vending Machine					
 Has a Language Displaying Ticket types and prices Accepting payment from customer 	CustomerTicketMetro Card				
Dispensing Ticket Providing change to customer	Payment Service Receipt				
Providing Receipt to customer					

	Customer	Student, Senior, Regular User
 Selecting Language Selecting Ticket/Recharge Selecting Type/Amount Selecting Payment method Providing Payment Selecting Receipt type Receiveing Ticket Receiveing Receipt 		 Ticket Vending Machine Payment Service Receipt Ticket Metro Card

Figure 1.1: CRC Card Model

Payment Service	
Handling payment transactions Validating payment Sending payment data to the TVM	Ticket Vending Machine Customer
	·
Reciept	

Figure 1.2: CRC Card Model

Tick	et
Has a typeHas a priceDisplaying Ticket type and Date	Ticket Vending Machine Customer

Metro Card	
Has Customer details Storing the value of the loaded amount on the card	 Ticket Vending Machine Customer
Storing Payment History	

Figure 1.3: CRC Card Model

Problem 7

2.1 Low-level Solution Domain Model Class Diagram

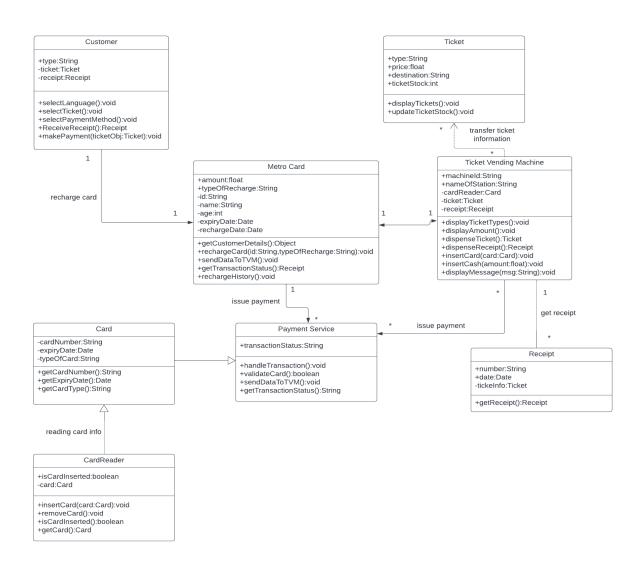


Figure 2.1: iGo Class Diagram

2.1.1 iGO Class Diagram

2.2 Low-level Solution Domain Model Sequence Diagrams

2.2.1 iGO Sequence Diagram-1

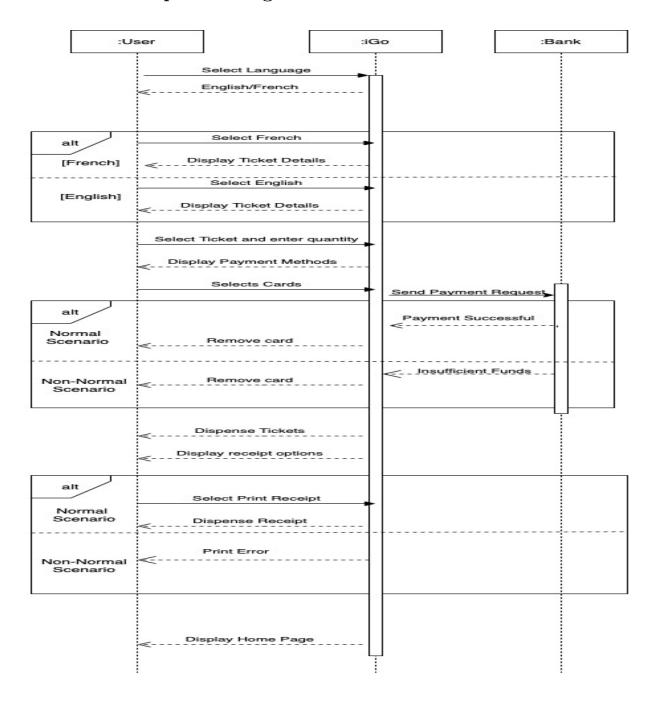


Figure 2.2: iGO Sequence Diagram-1

2.2.2 iGO Sequence Diagram-2

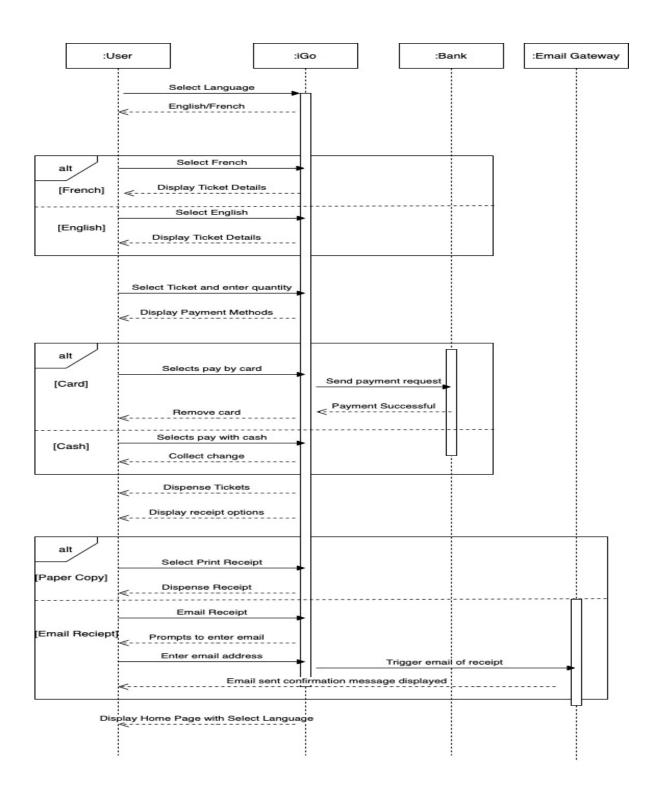


Figure 2.3: iGO Sequence Diagram-2

2.2.3 iGO Sequence Diagram-3

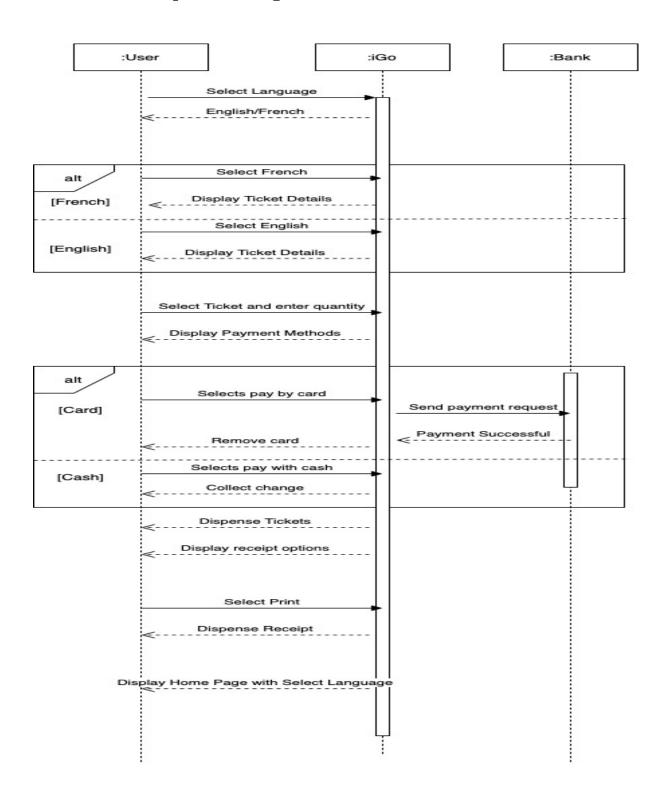


Figure 2.4: iGO Sequence Diagram-3

2.2.4 iGO Sequence Diagram-4

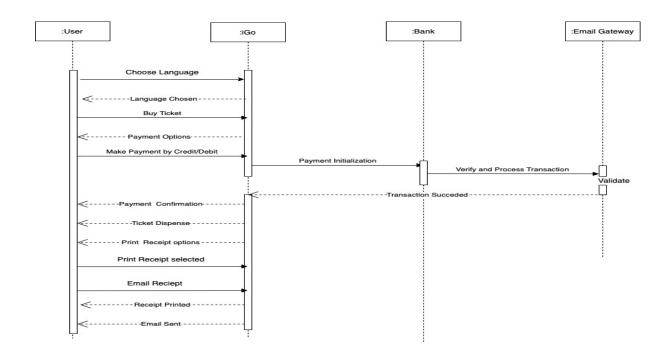


Figure 2.5: iGO Sequence Diagram-4

2.2.5 iGO Sequence Diagram-5

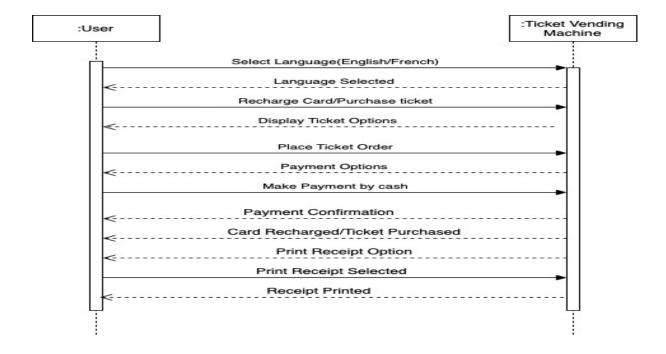


Figure 2.6: iGO Sequence Diagram-5

2.2.6 iGO Sequence Diagram-6

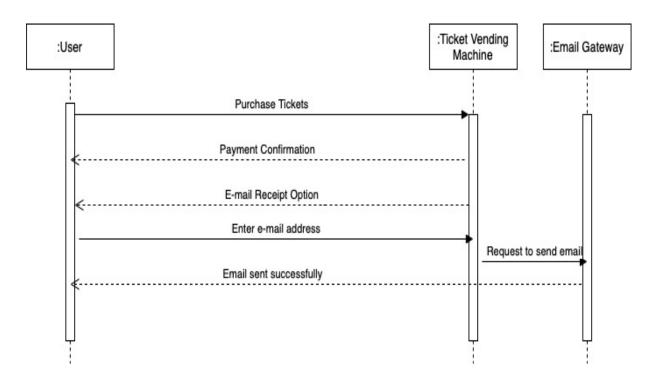


Figure 2.7: iGO Sequence Diagram-6

Problem 8

3.1 Implementation

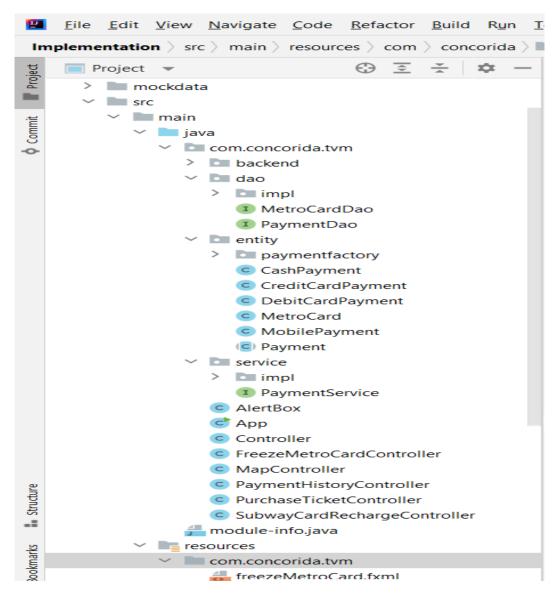


Figure 3.1: Implementation Structure

3.2 Exception Handling

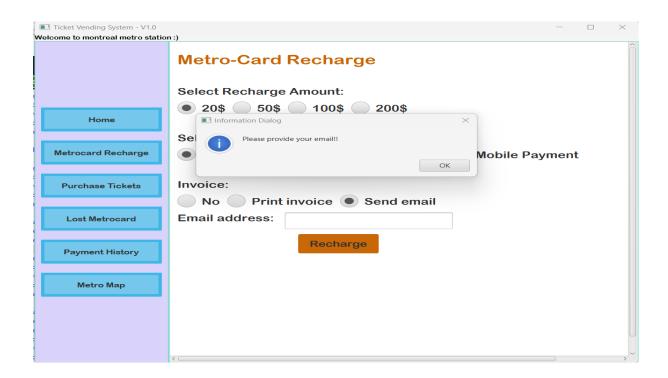


Figure 3.2: Validation for Email Address

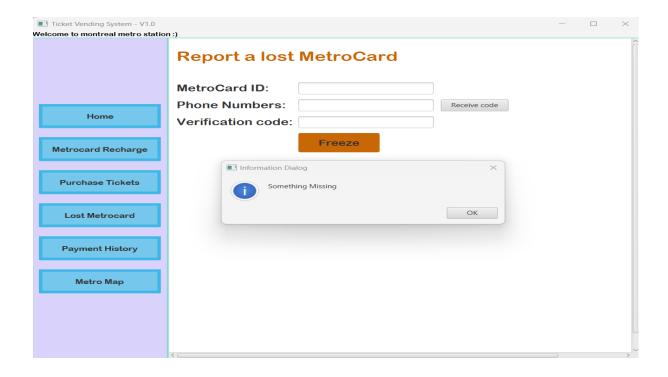


Figure 3.3: Validation for Any Missing Info.

Problem 9

4.1 Screenshot

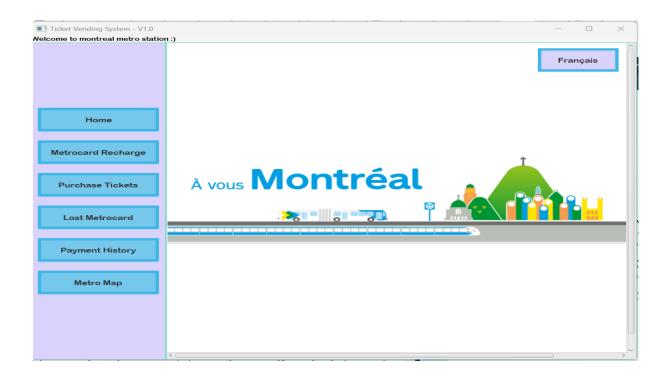


Figure 4.1: Home Screen

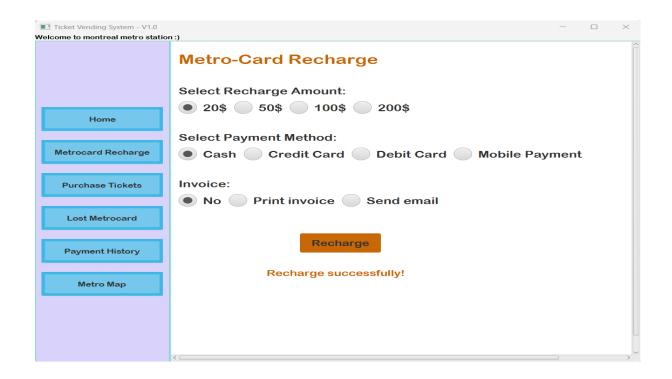


Figure 4.2: MetroCard Recharge Screen

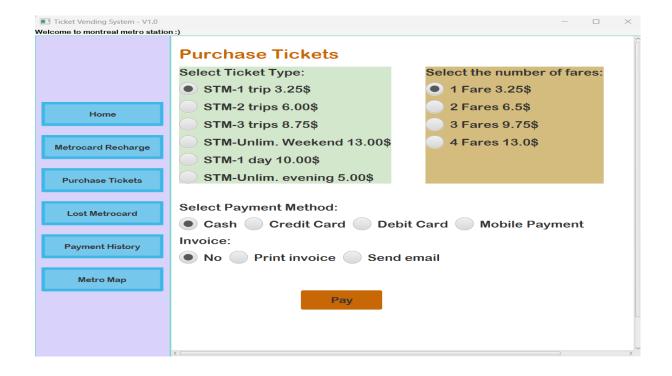


Figure 4.3: PurchaseTickets Screen

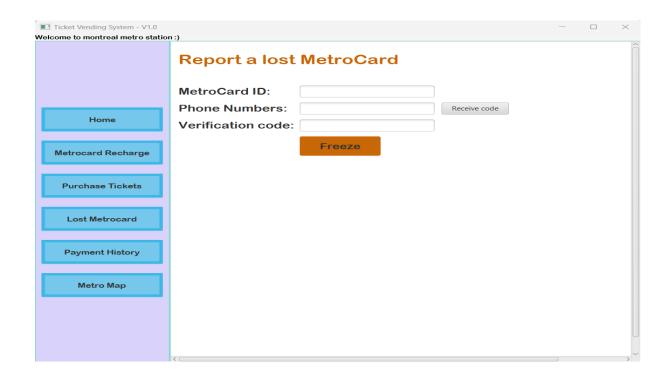


Figure 4.4: LostMetroCard Screen

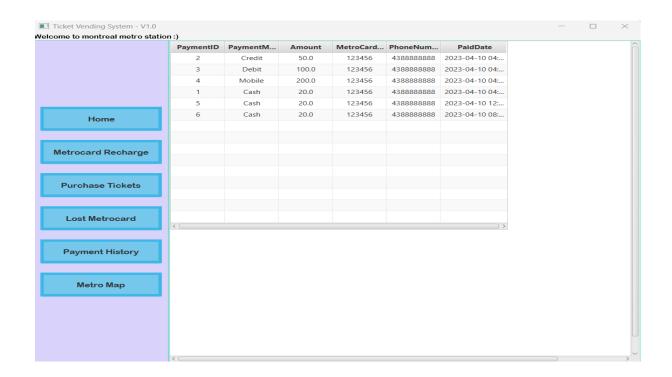


Figure 4.5: PaymentHistory Screen

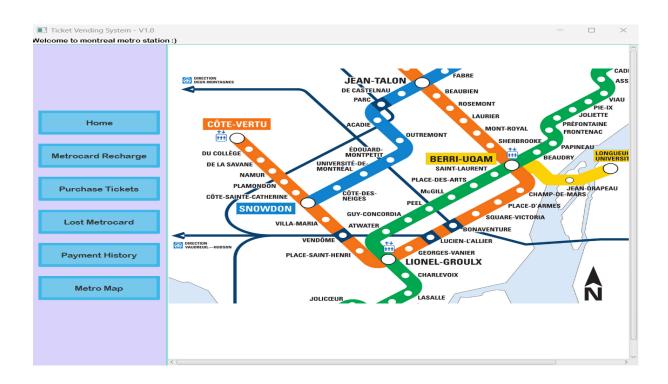


Figure 4.6: Map Screen

References

- 1. http://www.stm.info/en
- 2. https://app.diagrams.net/
- 3. PANKAJ KAMTHAN (2023) "Introduction To Domain Modeling
- 4. PANKAJ KAMTHAN (2023) "Brainstorming and Mind-Mapping"
- 5. PANKAJ KAMTHAN (2023) "Introduction to Interviews"
- 6. PANKAJ KAMTHAN (2023) "Introduction To Use Case Modeling"
- 7. https://livebook.manning.com/book/functional-and-reactive-domain-mod eling/chapter-1/9
- $8. \ \mathtt{https://hbr.org/1964/01/strategies-of-effective-interviewing}$
- 9. https://nulab.com/learn/software-development/uml-diagrams-guide/