

Báo cáo project Ecobike System

...

Nhóm 10:

Vương Xuân Hoàng 20183545

Nguyễn Đức Tú 20181807

Nguyễn Bá Tuân 20184005

Contents

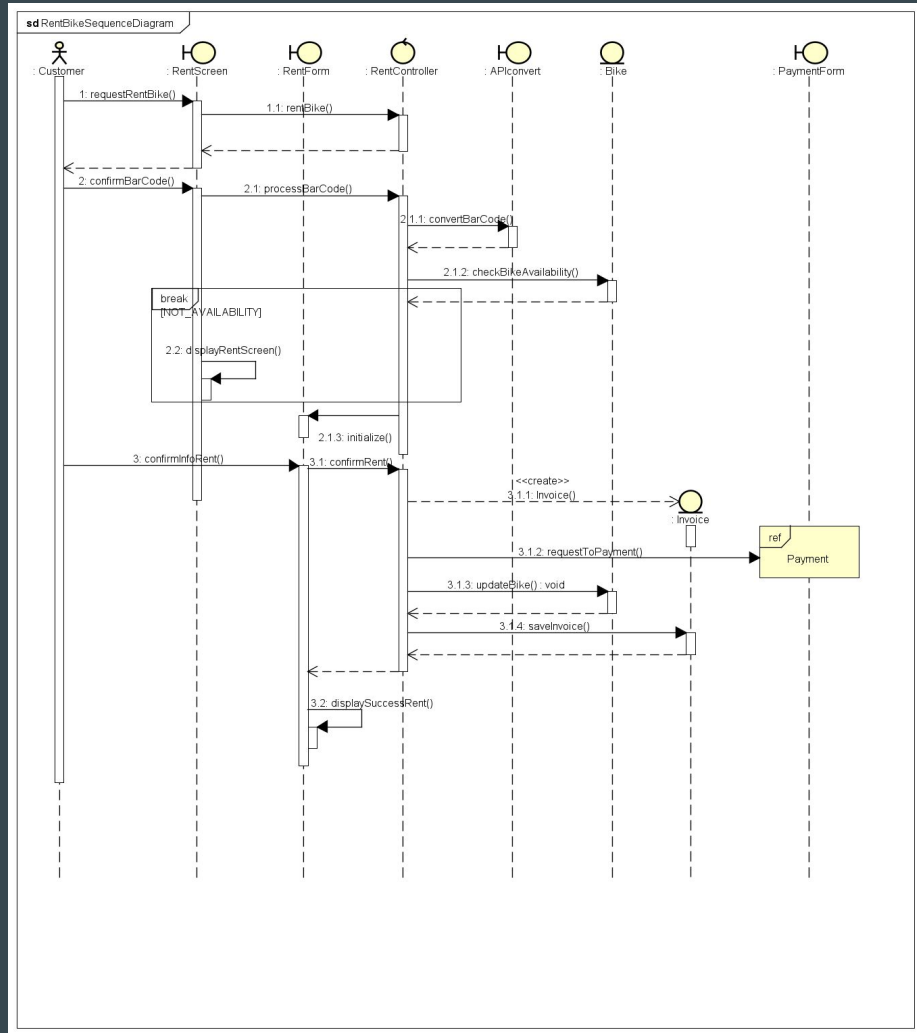
1. Member Contribution
2. Interaction Diagram
3. Communication Diagram
4. Design Consideration

1. Member Contribution

- Vương Xuân Hoàng: Code (Splash,home,Interbank Subsystem, View Bike and View Dock usecase), SRS, presentation slides, diagram(View Bike and View Dock usecase)
- Nguyễn Đức Tú: Interface Design (Splash, Home, Rent Bike usecase), code (Rent Bike Usecase), Test plan, Data Modeling, diagram(Rent Bike usecase)
- Nguyễn Bá Tuân: Interface Design and Code(Return Bike usecase), SDD, diagram(Return Bike usecase)

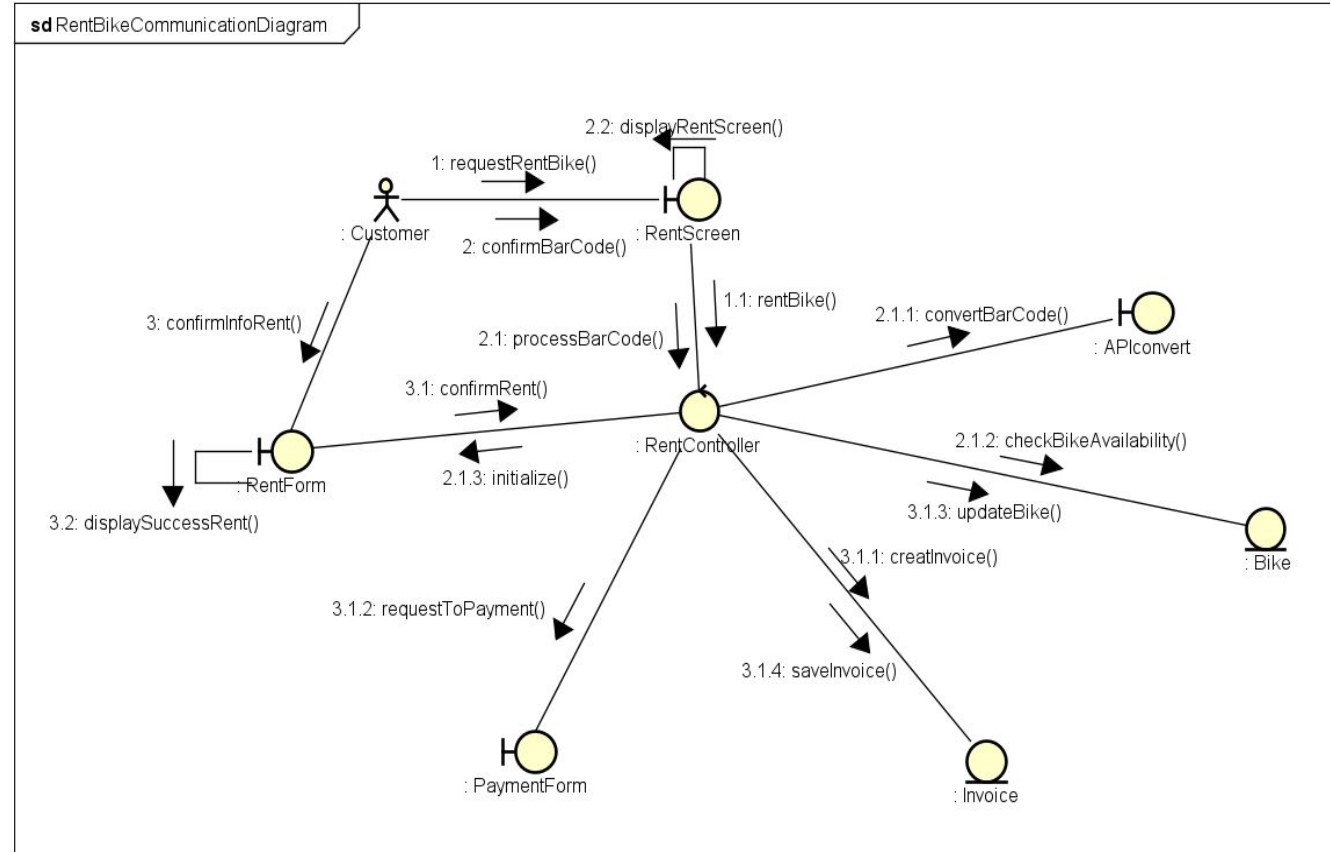
2. Interaction Diagram

- Communication Diagram

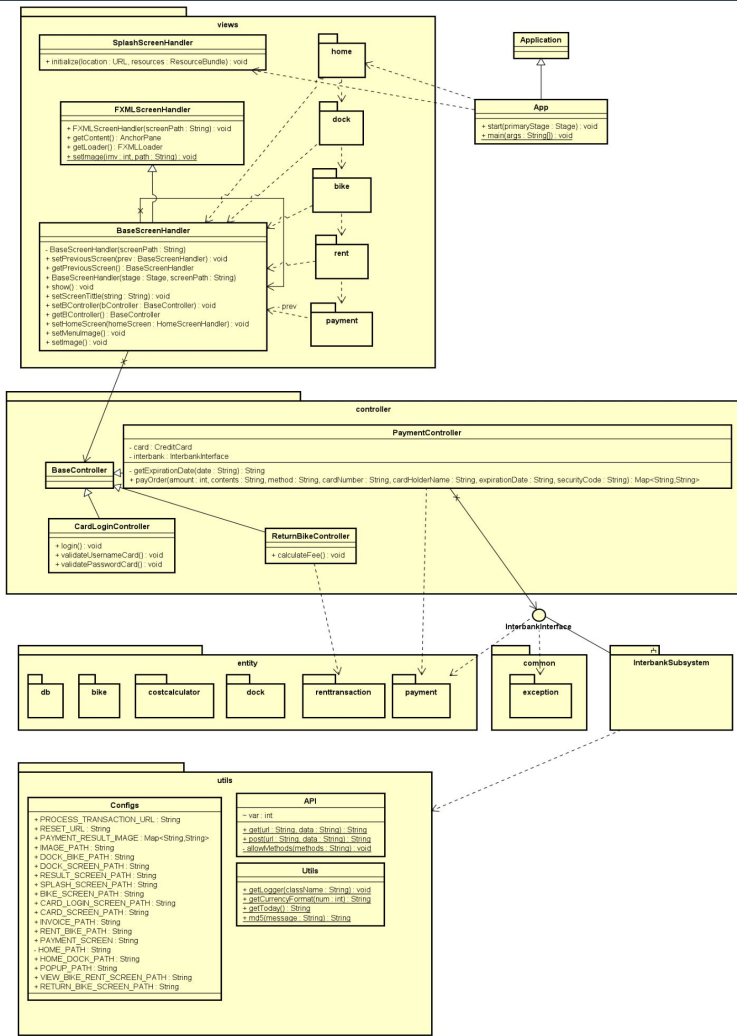


2. Interaction Diagram

- Communication Diagram



3. Class Diagram



4. Design Consideration

- Design Concept:
 - Coupling:
 - + Stamp Coupling
 - Cohesion:
 - + Coincidental Cohesion

4. Design Consideration

- SOLID
 - Single Responsible Principle

Related modules	Description	Improvement
PaymentController, CardLoginController	Còn chứa các hàm validate nằm bên trong	Tách ra class Validate

4. Design Consideration

- SOLID
 - Dependency Inversion:

Related modules	Description	Improvement
PaymentTransaction, Card	Đang bị phụ thuộc chặt chẽ vào nhau, khó mở rộng khi thêm nhiều hình thức thanh toán	Tạo một lớp abstract PaymentCard và để cho CreditCard kế thừa

4. Design Consideration

- Design Pattern
 - *Strategy Pattern: Sử dụng strategy pattern ở trong costcalculator, class Strategy1 implements Interface RentCostCalculator*
 - *Façade Pattern: Sử dụng interbank interface để tương tác đến Interbank, giảm thiểu tính phức tạp khi tương tác với Interbank*