Cairo University Faculty of Computers and Artificial Intelligence



**Advanced SE**

**Software design specification document**

**2022**

**Project Team**

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# Class diagram design

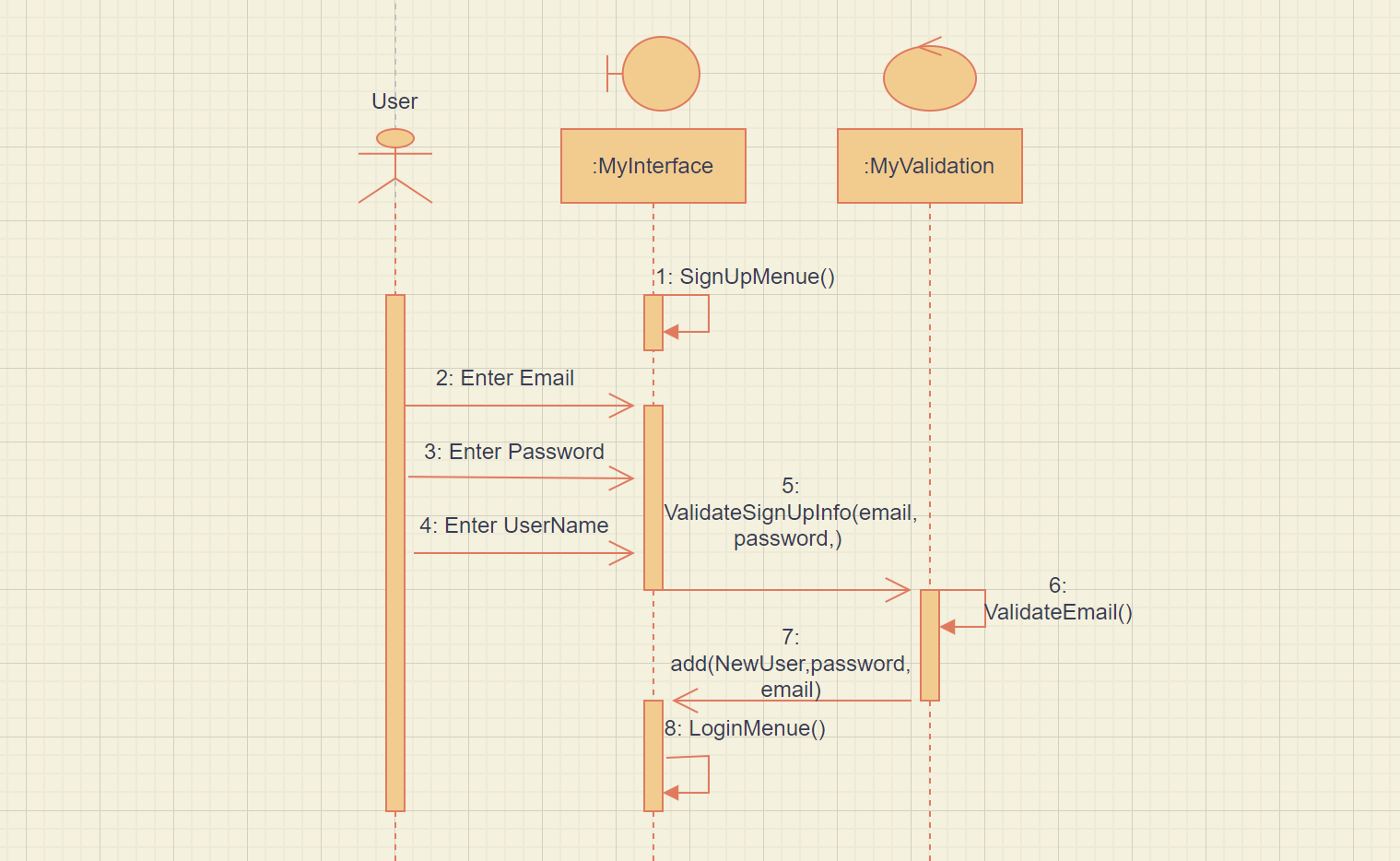
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# Class diagram Explanation

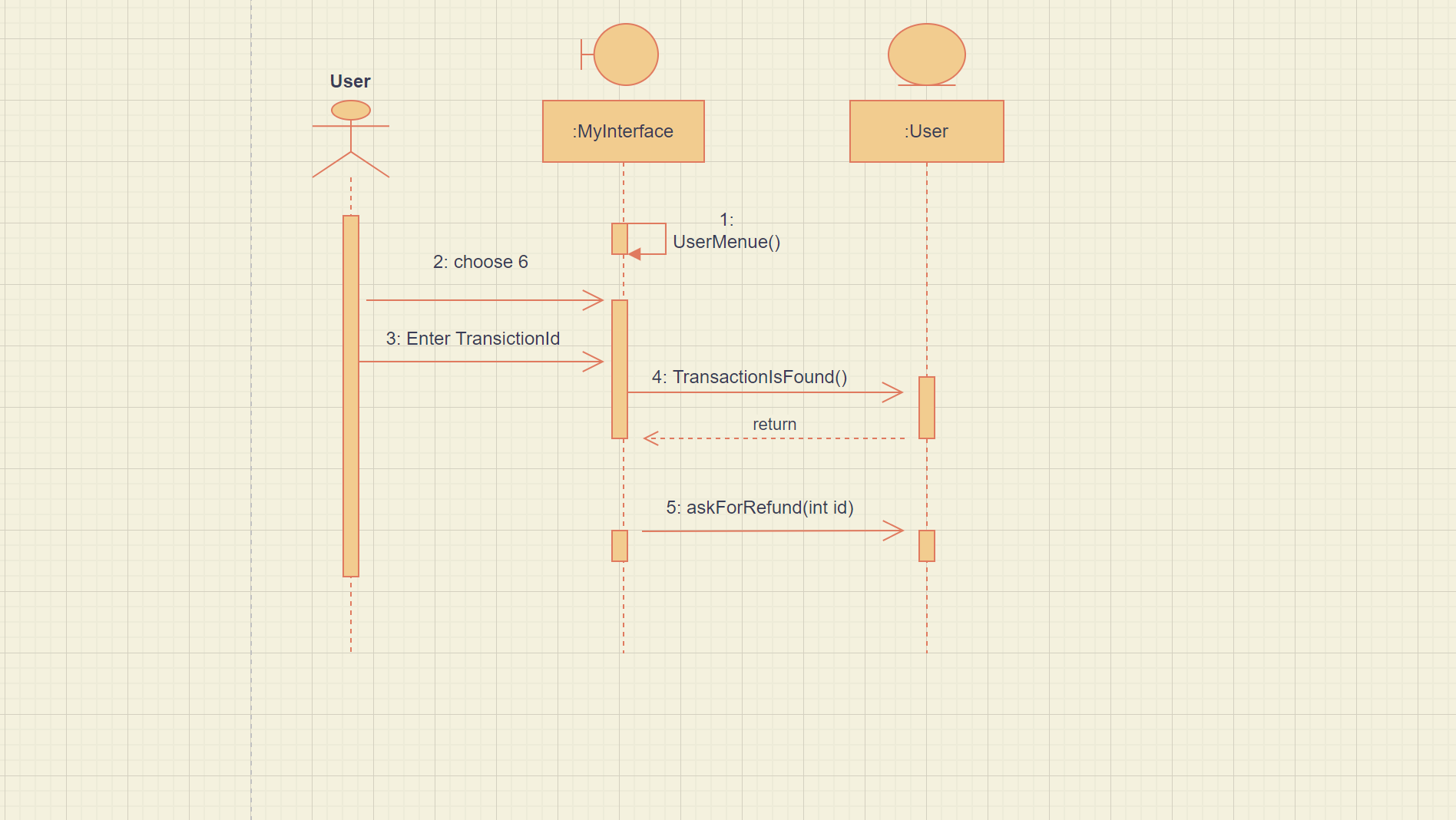
|  |  |  |
| --- | --- | --- |
| **Design pattern** | **Class follow Design pattern** | **Reason** |
| **Strategy** | 1. WalletPayment 2. Credit Card | In payment we have deferent behavior like wallet and credit Card. |
| **Singleton** | 1. Admin | We make constructor private and get object by get instance we check on information that admin enters from get Instance one object can create |
| **Observer** | 1. Subject (admin)  2. Observer (User) | Observer pattern is used when there is one-to-many relationship between objects such as if one object is modified, its dependents objects are to be notified  Like refund user must notify from admin if admin accept the request. |
| **Adapter** | 1. Ipayment  2. payment | In Ipayment function pay take parameter (amount, User) we make function(pay) in class payment to take just amount make as adapter. |

# Sequence diagram design

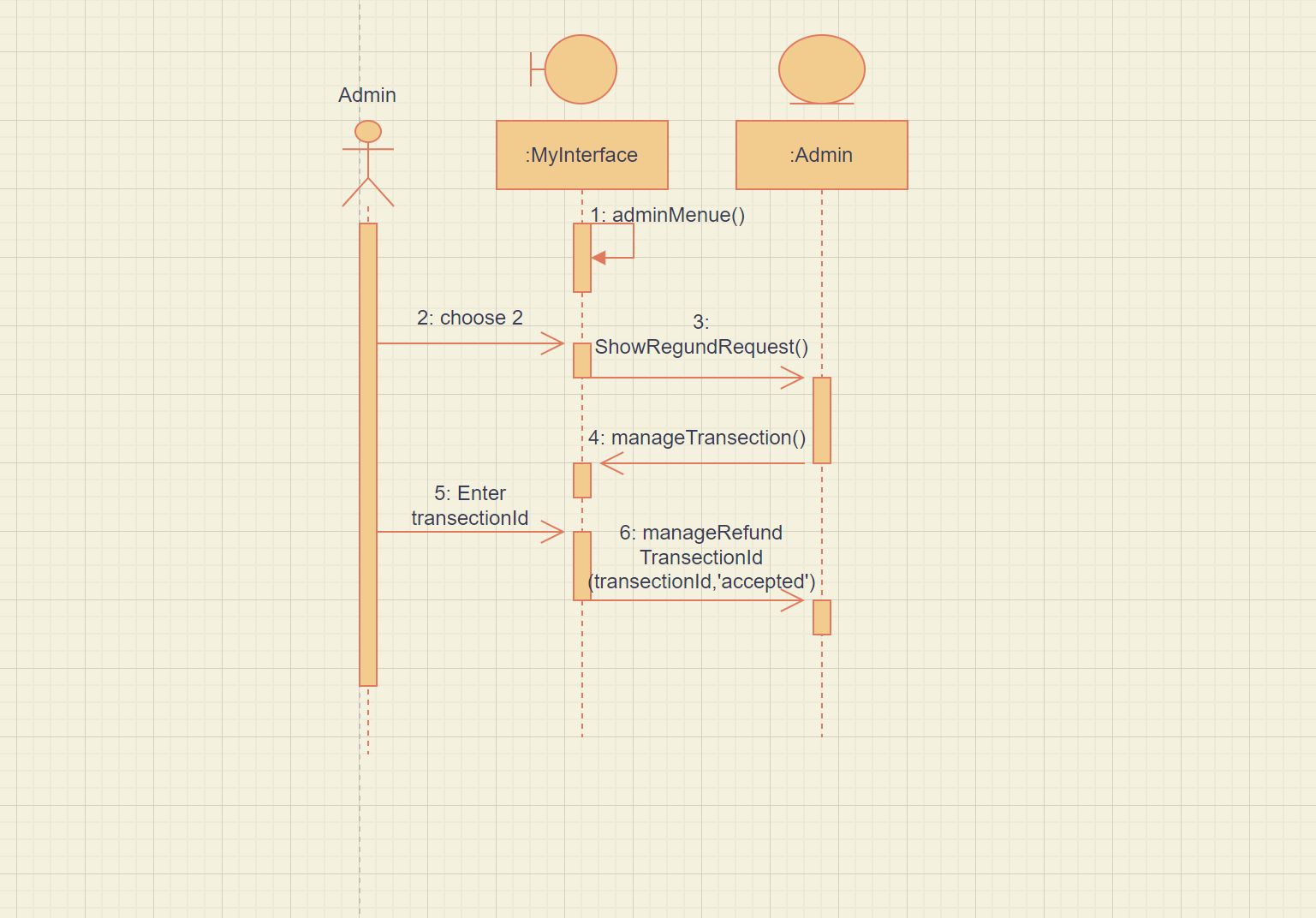
**1-Sign Up**

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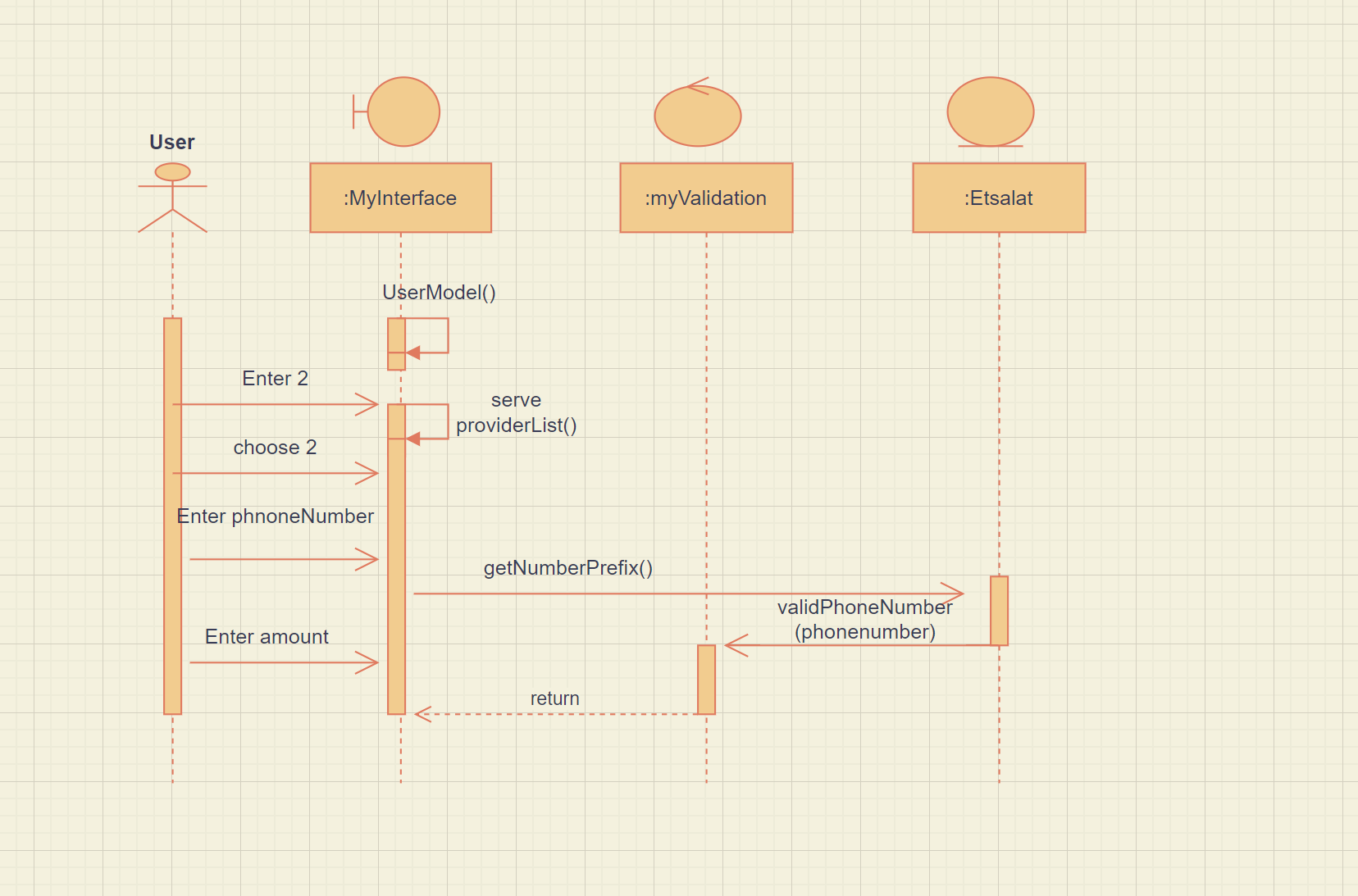
**2-Ask to Refund**

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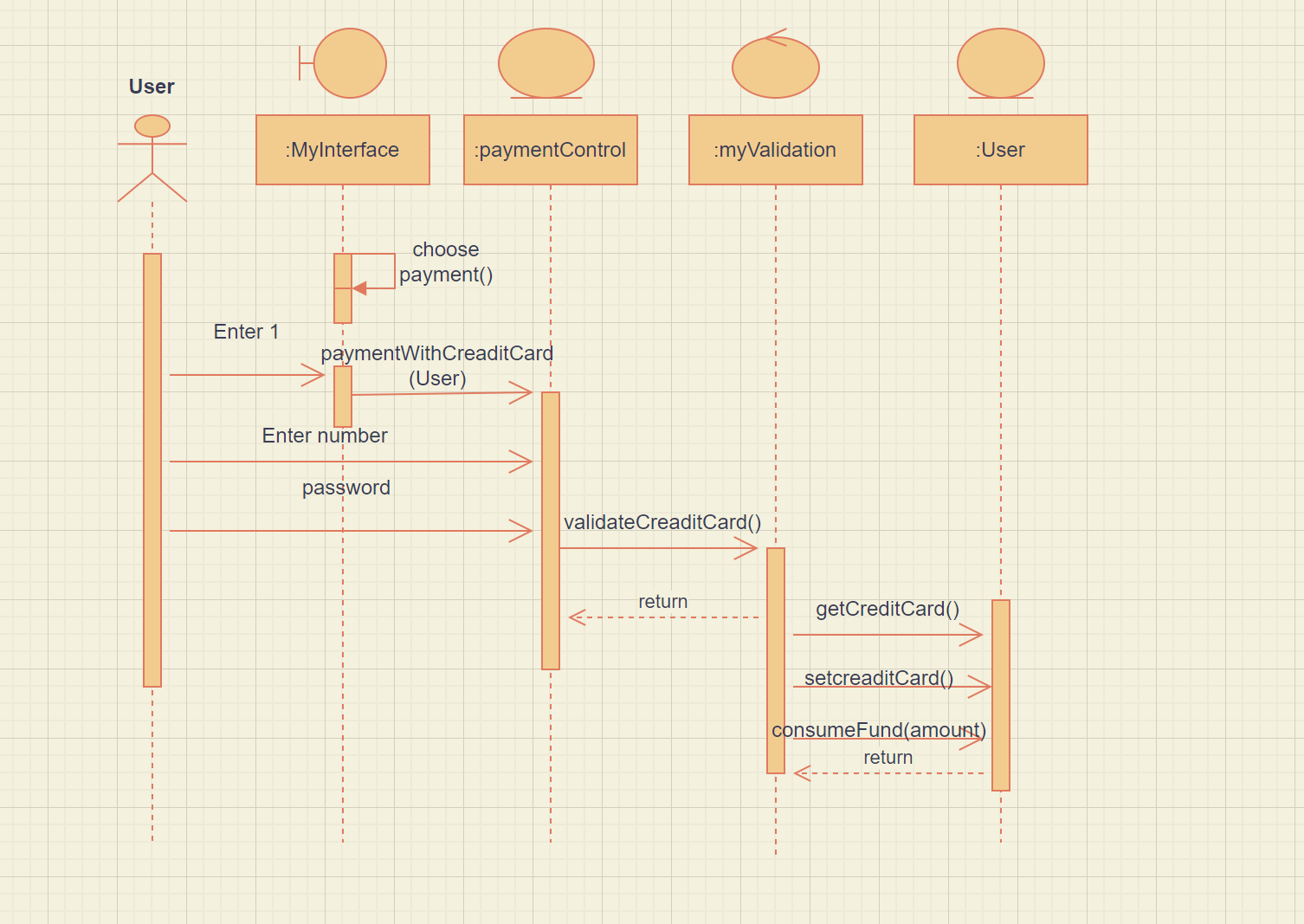
**3-Show List All Refunds**

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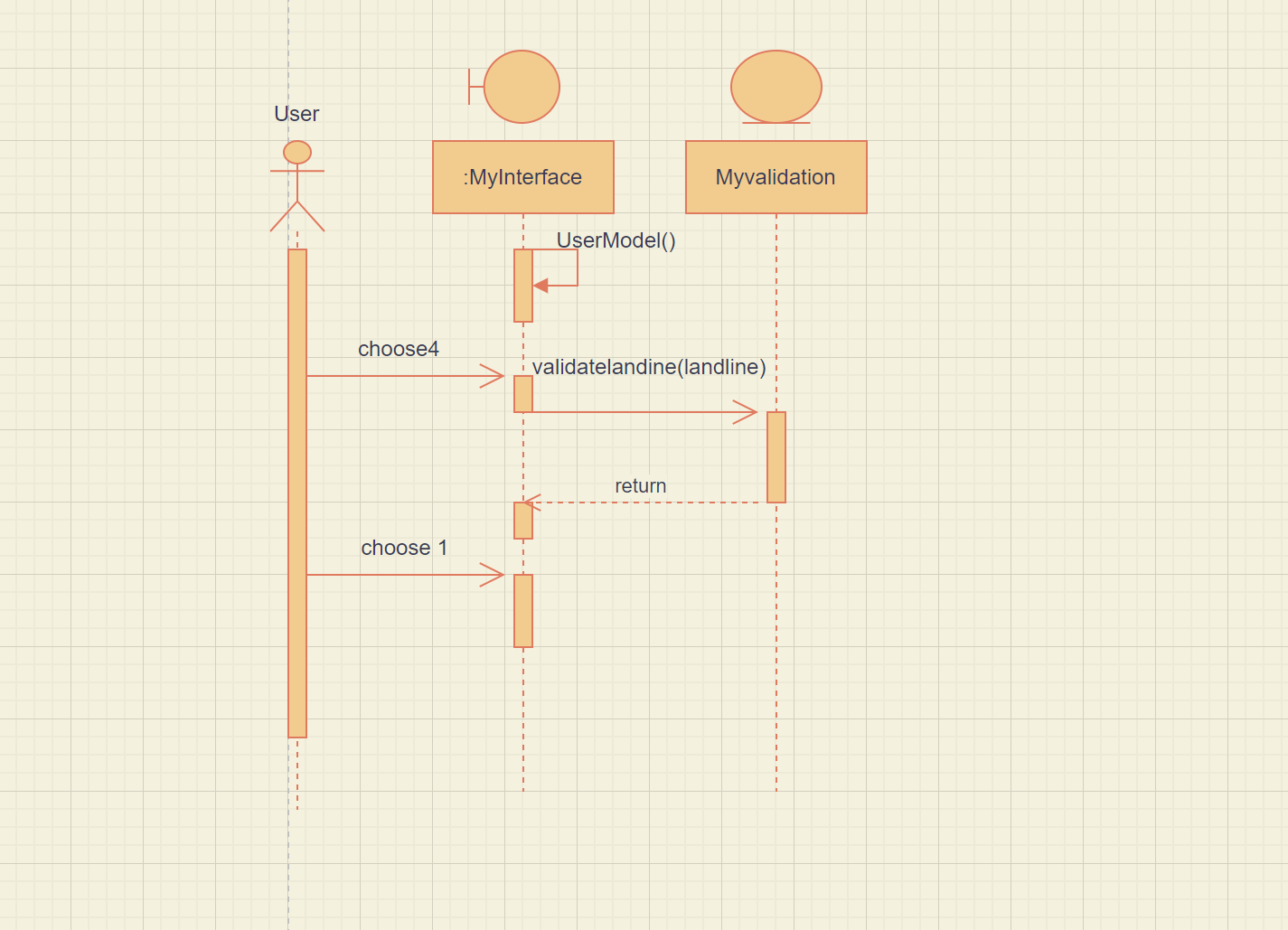
**4-Mobile Recharge**

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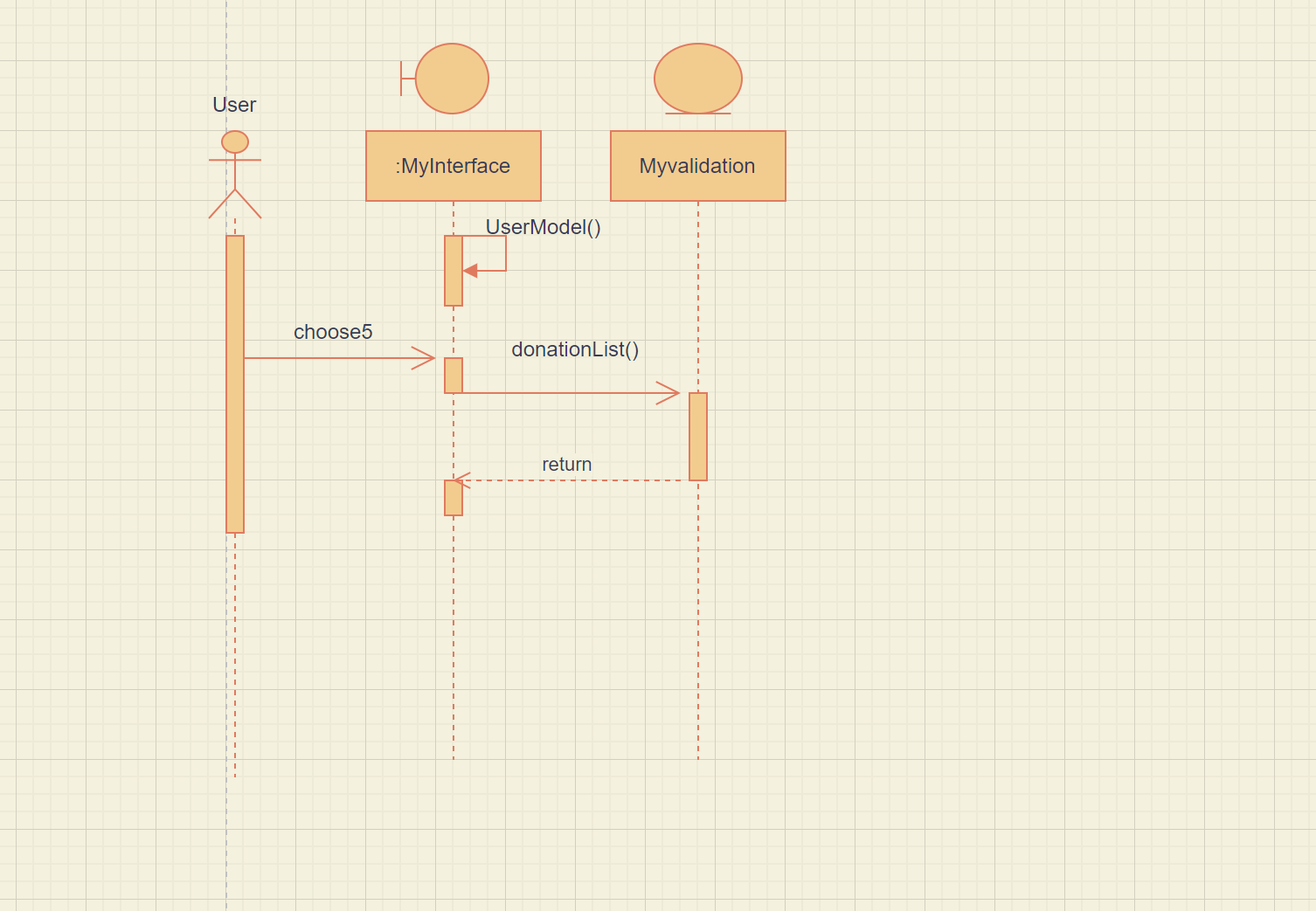
**5-Payment**

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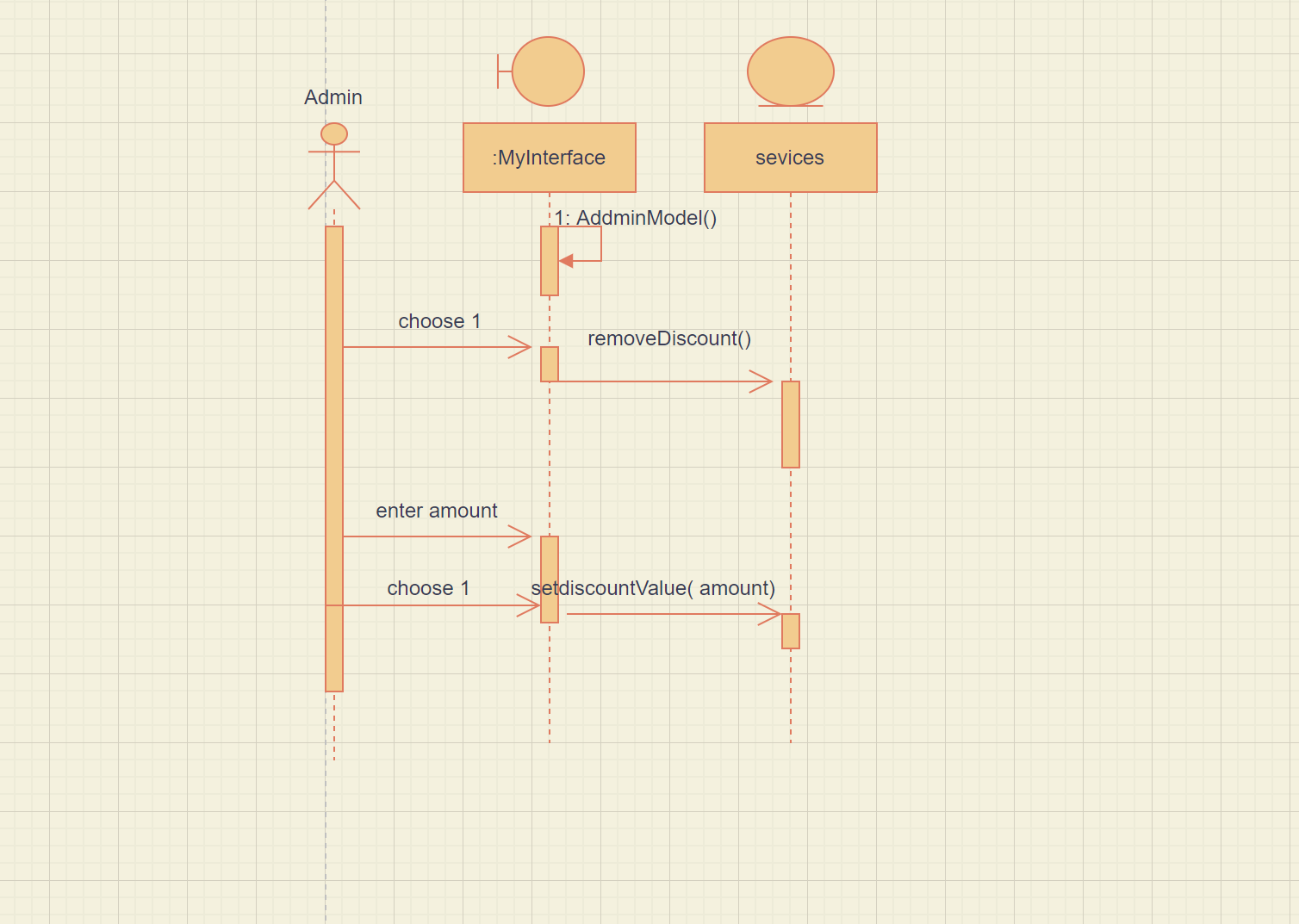
**6-Landline Recharge**

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**7-Donations**

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**8-Discount**

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# GitHub repository link