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**Scenario Analysis (Project No.9 Flight Booking)**

**A scenario for Transactions (Payments) :**

**Initial assumption:** The user has searched for a flight and is ready to book it and he\she is in the **Payment** windows.

**Normal:** the user chooses from different types of payments: PayPal, VisaCard, or MasterCard, that has different data requirements from each other, which the user must fill to complete the booking process.

After that, when the user clicks on specific button( atomically, not concurrently with other users - we can solve it by adding control switches devices that work as queues to prevent losing data and good preforms - ), The entered information will be checked from the bank/Company database, by checking the validity of the entered account and whether the balance is enough for the transaction, and the money transfer from the entered account to the company bank account, and this request of user data and the payment will be saved .

**What can go wrong?**

**Alternative:** The user must fill all the requirements that are in the specific payment type, next.

**Error:** If the account is not found in the bank database then the system shall indicate this error to the user and the transaction will be cancelled out.

**Error:** If the balance is not enough then the system shall indicate this error to the user and the transaction will be cancelled out.

**Error:** If a flight gets cancelled the money gets refunded to the same account that the payment was made by.

**Error:** The user does not fill in all required fields in the booking form. The system should show them an error and shall not let them go to the next step before filling the fields.

**Other Activities:** When a user clicks the confirmation button, If the queue - that is collect the waiting data to be checked or saved - is full the system shall indicate this error to the user and the transaction will be cancelled out.

**System state on completion:** All the information provided in the payment form are saved in the database and the money transferred to the correct account.