**COLLEGE OF ENGINEERING AND ARCHITECTURE**

**Computer Engineering Department**

**Academic Year: 2022-2023**

**Fall SEMESTER**

**SWE202: Introduction to Software Engineering**

**Assignment 2: System modeling**

An automated teller machine (**ATM**) or the automatic banking machine (**ABM**) is a banking subsystem that provides bank customers with access to financial transactions in a public space without the need for a cashier, clerk, or bank teller.

**Q1:** Create a **system sequence diagram** that describes the main success scenario of **the Withdraw money using a Visa card.**

The following steps describe the withdraw money using a visa card.

1. The **Visa CardHolder** inserts his or her smartcard in the **ATM’s card reader**.

2. The ATM verifies that the card that has been inserted is indeed a smartcard.

3. The ATM asks the Visa CardHolder to enter his or her pin number.

4. The Visa CardHolder enters his or her pin number.

5. The ATM compares the pin number with the one that is encoded on the chip of

the smartcard.

6. The ATM requests an authorisation from the **VISA authorisation system.**

7. The **VISA authorisation system** confirms its agreement and indicates the daily

withdrawal limit.

8. The ATM asks the Visa CardHolder to enter the desired withdrawal amount.

9. The Visa CardHolder enters the desired withdrawal amount.

10. The ATM checks the desired amount against the daily withdrawal limit.

11. The ATM asks the Visa CardHolder if he or she would like a receipt.

12. The Visa CardHolder requests a receipt.

13. The ATM returns the card to the Visa CardHolder.

14. The Visa CardHolder takes his or her card.

15. The ATM issues the banknotes and a receipt.

16. The Visa CardHolder takes the banknotes and the receipt

C:\Users\asus\Desktop\Capturea.PNG

**Visa Card Holder**

**VISA authorization system**

**ATM**