# **Analyze the diagram above and do the following tasks:**

1. **Explain about relationships in the above use case**

**Answer:** Following are the relationships in diagram:

**Operator:** operator can start-up and shut-down the system.

**Customer:** customer activates the session.

**Banker:** banker is linked with the transaction part.

**Include**: session contains transaction part.

**Extend**: Transaction is not possible if PIN is invalid.

1. **Does this use case model require any modifications?**

**Answer:**Yes modification in this diagram is required.

* There should be a use case for maintainence
* There should be a use case for repair
* There should be another actor cashier
* There should be a use case for cash input

**c) Write descriptive use case for withdrawal use case**

**Answer:** Withdraw money from ATM

**Actors:** Customer ,operator and banker

**Pre-condition**:

* Cash available in machine.
* PIN code is valid.
* ATM machine is operational.

**Trigger:** Withdraw money from ATM machine.

**Scenario:**

* Customer inserts ATM card.
* ATM machine askes for PIN code.
* Customer enters PIN code.
* ATM machine authenticates code.
* ATM machine asks for amount to be withdraw.
* Customer inserts required amount.
* Machine checks if amount available.
* Machine ejects money.
* Customer receives money.
* Machine ejects receipt.
* Customer receives receipt.
* Machine ends the session.

**Exception :**

* Card not available.
* PIN code is invalid.
* Machine is not operational.
* Amount not available.

**Frequency of use:** it is used 24/7

**Channel to actors:** ATM machine.