স্থায়ী সনদ প্রাপ্ত বিশ্ববিদ্যালয়

City University

...creating a culture of excellence

Department of CSE

Assingment 02

Course Code : CSE-325

Course Title : **System Anlysis and Design**

Experiment Name : Write down a report on ATM Activity diagram.

Submitted To : Supta Richard Philip

City University , Bangladesh

Submitted By

ID : **171442528**

Name : **MD.Amran Hossen**

Program : CSE 44th Batch (Eve)

Semester : 7th Semester (Spring)

Date Of assigned : **21-06-2019**

What is Activity Diagram ?

Activity Diagrams describe how activities are coordinated to provide a service. Activity Diagrams consist of activities, states and transitions between activities and states. You can use activity diagram to model the logic of a single use case, or even how to coordinate a collection of use cases for the entire targeted system being developed. For example, to model how the events in a single use case relate to one another - in particular, use cases where activities may overlap and require coordination.

Guidelines for creating Activity Diagrams

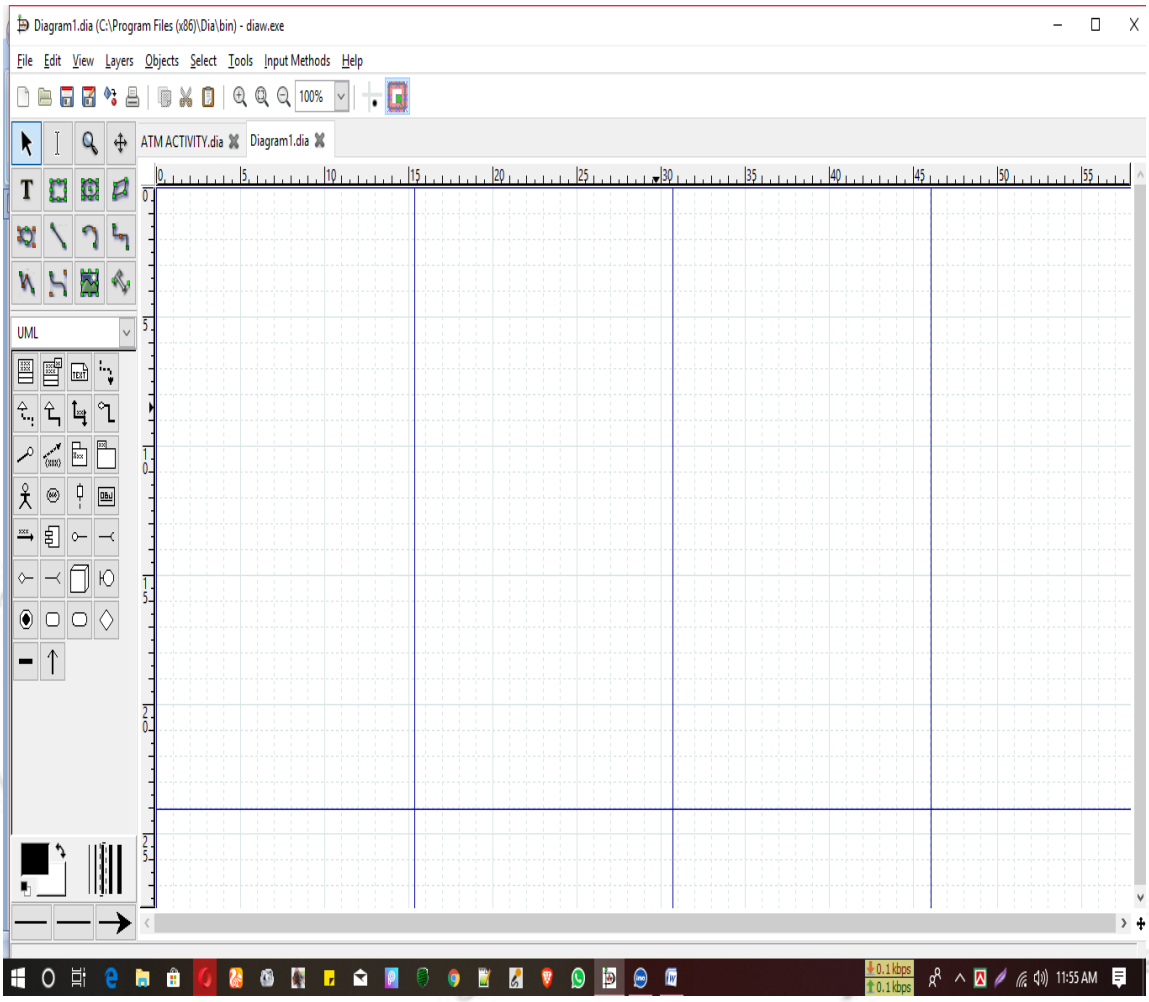
- Minimize the number of crossings links or relationship among activities.
- Reorganize larger diagrams into several smaller ones. It is often easier to have several diagrams on various levels of detail than a single complex one.
- Use swimlanes to model responsibility of stakeholders, function of department or service provided by operational units.
- It can be used to elaborate the logic of an entity in UML, such as, a use case, function or orchestration of several use cases and etc.
-

What is ATM ?

An automated teller machine (ATM) is an electronic banking outlet that allows customers to complete basic transactions without the aid of a branch representative or teller. Anyone with a credit card or debit card can access most ATMs.The first ATM appeared in London in 1967, and in less than 50 years, ATMs spread around the globe, securing a presence in every major country and even tiny little island nations such as Kiribati and the Federated States of Micronesia.ATMs are convenient, allowing consumers to perform quick, self-serve transactions from everyday banking like deposits and withdrawals to more complex transactions like bill payments and transfers.

How To Work From DIA Software :

1. First Time I am DIA software Install . (dia-setup-0.97.2-2-unsigned)
2. Then Open DIA Software . This page



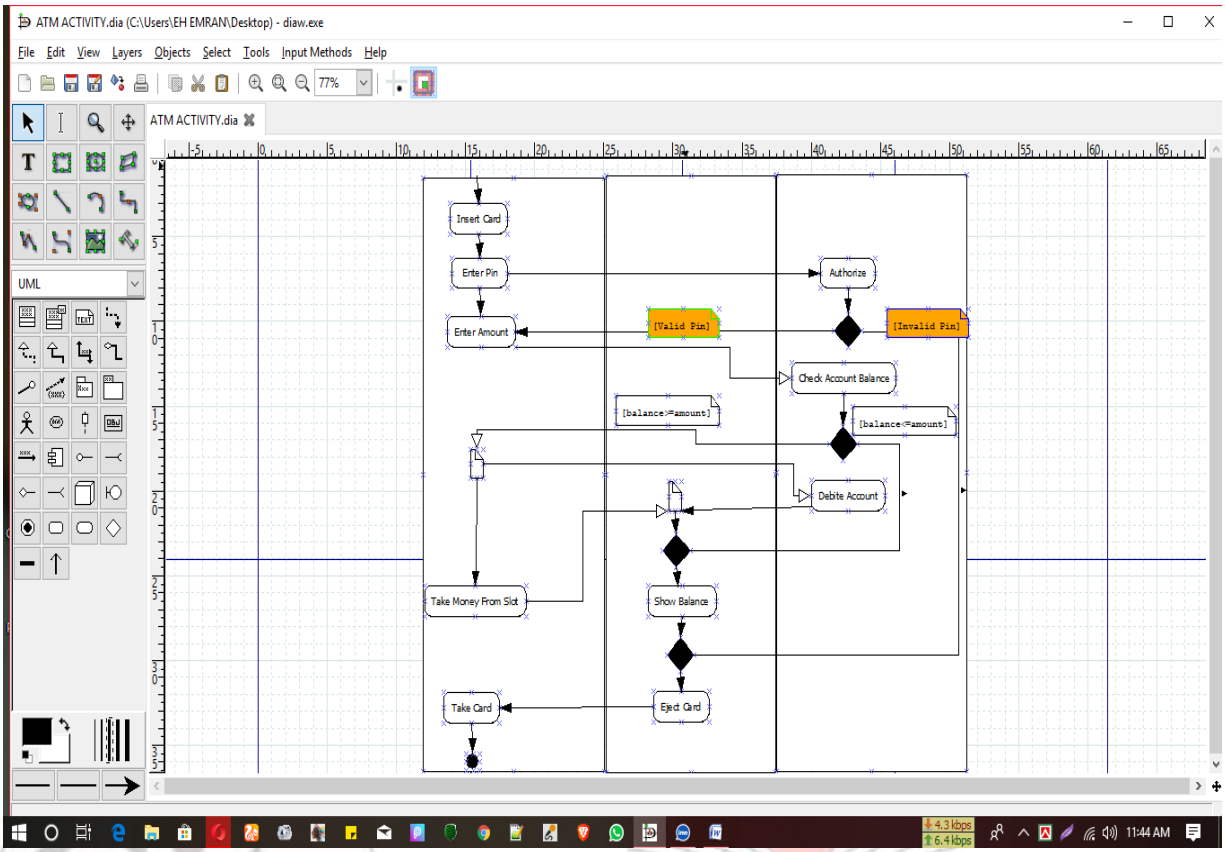
3.Then Using UML tools for make ATM Activity Diagram.

4.Useing Different Symbol For ATM Activity.

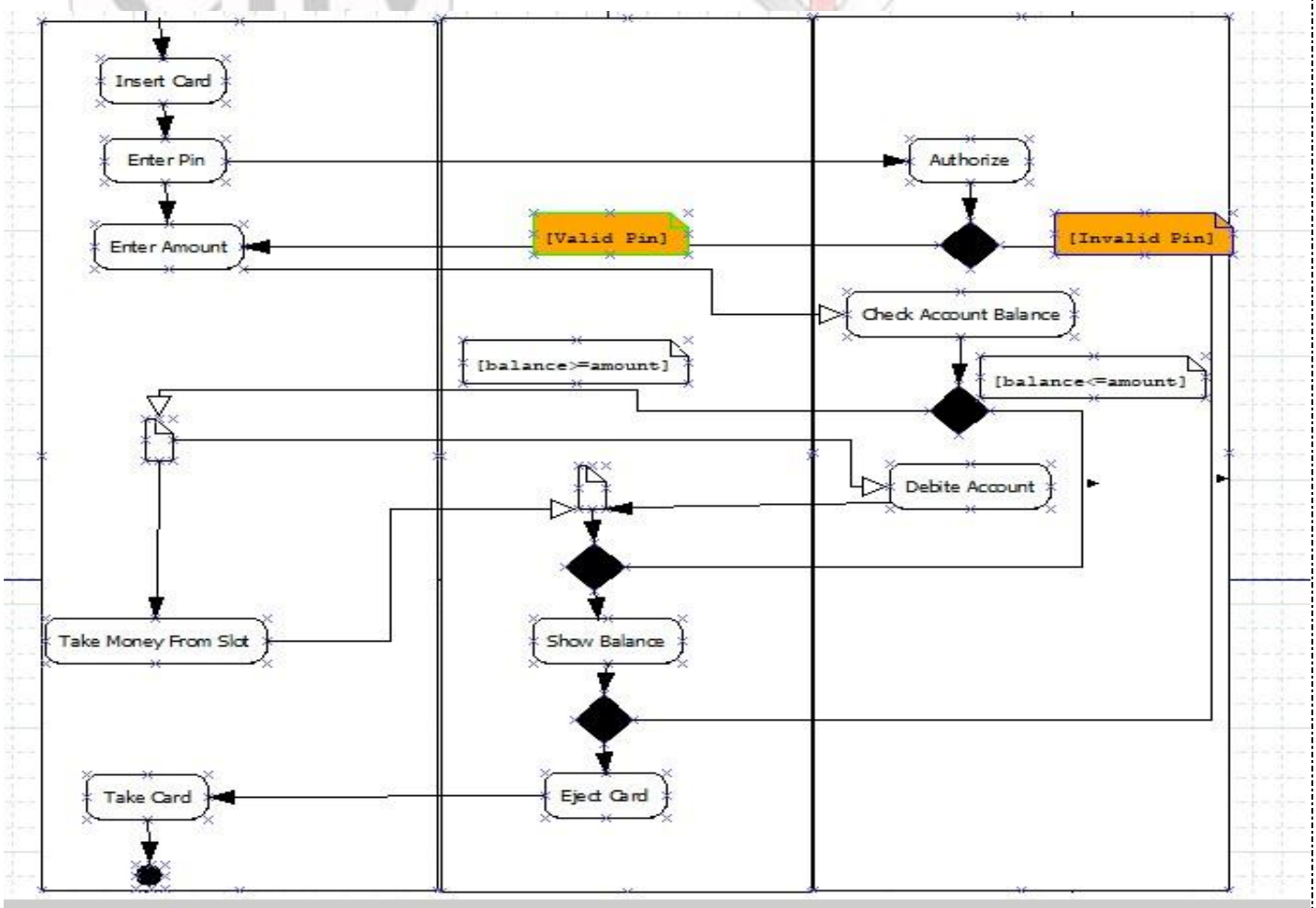
5. then Finish my Diagram save it and DIA save Extention file .dia.

6. Then Finish my Work .....Page

Screen Shot after diagram Completed :



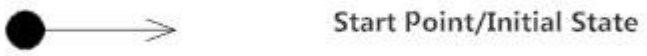
. JPG FILe



Basic Activity Diagram Notations and Symbols:

Initial State or Start Point

A small filled circle followed by an arrow represents the initial action state or the start point for any activity diagram. For activity diagram using swimlanes, make sure the start point is placed in the top left corner of the first column.



Activity or Action State

An action state represents the non-interruptible action of objects. You can draw an action state in SmartDraw using a rectangle with rounded corners.

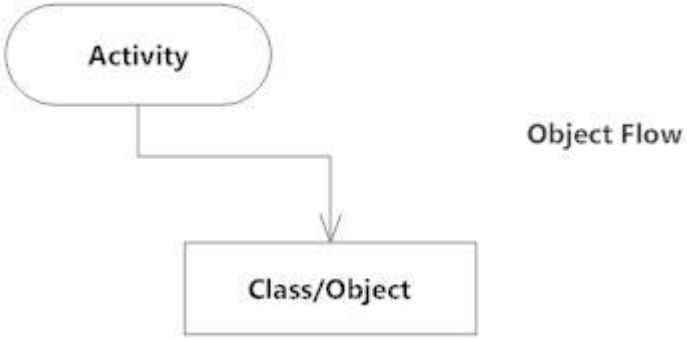
Activity

Action Flow

Action flows, also called edges and paths, illustrate the transitions from one action state to another. They are usually drawn with an arrowed line.

Object Flow

Object flow refers to the creation and modification of objects by activities. An object flow arrow from an action to an object means that the action creates or influences the object. An object flow arrow from an object to an action indicates that the action state uses the object.



Decisions and Branching

A diamond represents a decision with alternate paths. When an activity requires a decision prior to moving on to the next activity, add a diamond between the two activities. The outgoing alternates should be labeled with a condition or guard expression. You can also label one of the paths "else."

Guards

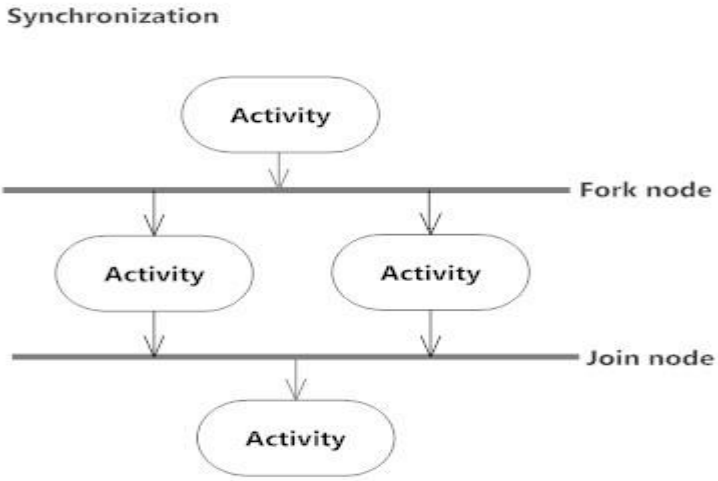
In UML, guards are a statement written next to a decision diamond that must be true before moving next to the next activity. These are not essential, but are useful when a specific answer, such as "Yes, three labels are printed," is needed before moving forward.

Synchronization

A fork node is used to split a single incoming flow into multiple concurrent flows. It is represented as a straight, slightly thicker line in an activity diagram.

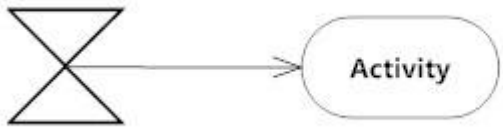
A join node joins multiple concurrent flows back into a single outgoing flow.

A fork and join mode used together are often referred to as synchronization.



Time Event

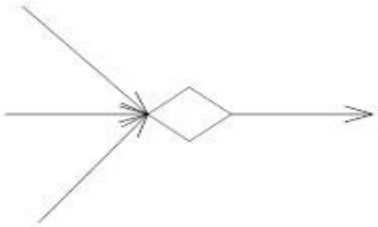
This refers to an event that stops the flow for a time; an hourglass depicts it.



Time Event

Merge Event

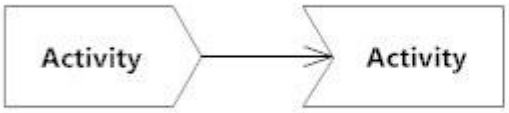
A merge event brings together multiple flows that are not concurrent.



Merge

Sent and Received Signals

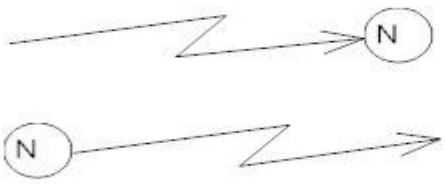
Signals represent how activities can be modified from outside the system. They usually appear in pairs of sent and received signals, because the state can't change until a response is received, much like synchronous messages in a sequence diagram. For example, an authorization of payment is needed before an order can be completed.



Signal sent and received

Interrupting Edge

An event, such as a cancellation, that interrupts the flow denoted with a lightning bolt.



Interrupting Edge Symbols

Swimlanes

Swimlanes group related activities into one column.