

On the basis of above Use case:

- a) Develop the system sequence diagram for Withdraw Money and Deposit functions. 7
- b) Write the contract for any one of the system operations you identify. 8
3. a) What is conceptual Model used for? How system behaviour can achieve data abstraction and Encapsulation? Explain. 7
- b) When contracts are used? Explain in context of an example by using the standard guidelines. 8
4. a) What does visibility controls in Object oriented programming? Describe different types of it with example. 7
- b) What are the roles of objects and patterns in OODM? Describe the different patterns used. 8
5. a) How domain model can be built from use case? Illustrate the steps used. 8
- b) What are the important things to be handled during mapping design to code? Illustrate with an example. 7
6. a) Why exception and error handling is important in OOAD? Explain. 7
- b) What are descriptor classes in GRASP? How does it achieve singleton functionality? 8
7. Write short notes on: (Any two) 2×5
 - a) Use Case Model
 - b) MVC Pattern
 - c) Creating methods from collaboration diagram

POKHARA UNIVERSITY

Level: Bachelor

Semester: Spring

Year : 2017

Programme: BE

Full Marks: 100

Course: Object Oriented Design and Modeling through UML

Pass Marks: 45

Time : 3hrs.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Attempt all the questions.

1. a) What is UML? How agile is applied to software development process? 7
- b) What is object oriented analysis and design? Describe the most used software development life cycle used nowadays? 8
2. Case Study: Bank Transaction System:

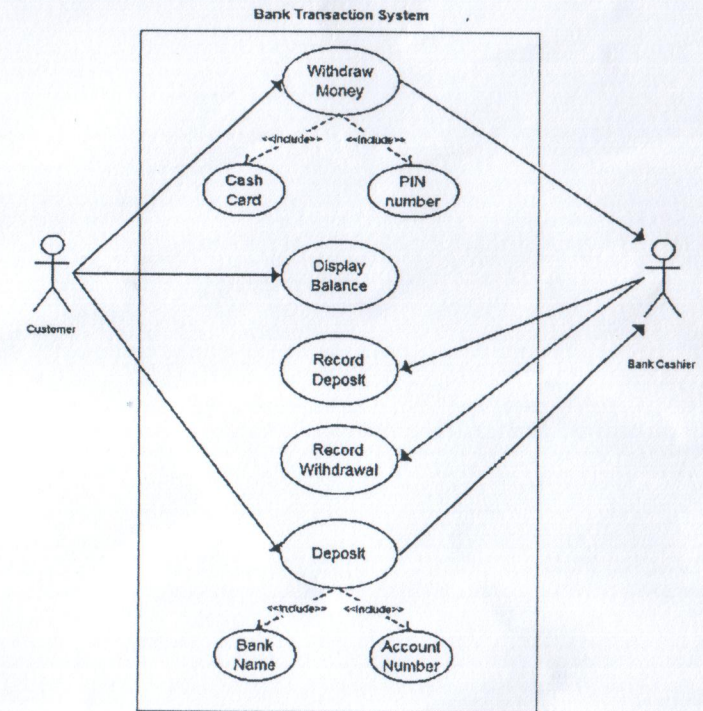


Fig: use case of Bank Transaction System