

SSN College of Engineering

Department of Computer Science and Engineering

UCS1313 – Object Oriented Programming using Java Laboratory

II Year CSE - A Section (III Semester)

Academic Year 2019-20

Exercise - 5 – Exception Handling

Objective:

1. To test the working of exception handling mechanism in Java

Sample Learning Outcome:

1. Need of exception handling and it's implementation in Java
2. User defined exception creation and usage
3. Usage of try, catch, finally, throw, throws

Best Practices:

1. Class Diagram usage
2. Naming convention – for file names, variables
3. Comment usage at proper places
4. Prompt messages during reading input and displaying output
5. Incremental program development
6. Modularity
7. All possible test cases in output

1. Create a class named "Person" which consists of name, age, aadhar number. Create methods getInput(), display(), canVote(), hasAadhar(). Create and handle the following Exceptions.
 - a. For age -> if you give alphabets then throw NumberFormatException
 - b. For voting -> if age is less than 18 then throw MinorCitizenException
 - c. For aadhar -> if no valid aadhar then throw NullPointerException
2. Create a class named "Account" which contains name, acct_num, branch, balance, PAN_num. Create functions for deposit and withdrawal.
 - a. In deposit function, if the customer deposits money more than 25000, then throw the user defined exception "PANRequiredException" and get the PAN number and proceed the deposit.
 - b. In withdrawal function, if the customer requesting some money, check on withdrawal will it satisfy the minimum_bal amount and throw the "MinBalRequiredException" exception. If the withdrawal amount is more than the balance amount then throw "NotEnoughMoneyInAccountException".
 - c. Search for a particular acct_num. If not present then throw "AccountNotFoundException".
 - d. On PAN number entry check the format of 10 characters. First 5 characters then 4 numbers and then 1 character. If the format not matched then throw "PANFormatMismatchException".
 - e. On account creation if user gives a non branch, then throw "BranchNotFoundException"