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Online Banking System

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Abstract: *Online Banking for customer. The system is an online application that can be accessed throughout the organization and outside as well with proper login provided. It has been planned to be having the view of distributed architecture, with centralized storage of the database. The application for the storage of the data has been planned. Using the constructs of Oracle 10g and all the user interfaces have been designed using the JAVA. The database connectivity is planned using the “Database” methodology. The standards of security and data protective mechanism have been given a big choice for proper usage. The application takes care of different modules and their associated reports, which are produced as per the applicable strategies and standards that are put forwarded by the administrative staff*

I. INTRODUCTION

Online Banking System is all about knowing our customer need and provide them with the right service at the right time through right channel 24*7 day a week being “electronic”, it not only provides its customers with faster and better facilities, it even reduces the manual overhead of accounts maintenance. The BANK is also affiliated to the Indian Public BANK, s Conference (IPSC), and the National Progressive BANK, s Conference (NPSC). The members of these organizations include some of the premier BANKs in the country. APANA-BANK C.P. is one of the most prestigious BANKs in India. Founded as a Public BANK in 1972 in New Delhi, it is a private institution run by the Delhi Public BANK Society. The BANK has also extended its expertise further and in collaboration with the Government of Haryana, has taken up 3 BANKs in the under-privileged area of Mewat to augment and enhance their standards and make them more conducive to teaming . THE BANK considers education to be a life-long process which should have a strong foundation. The goal of the BANK is to inculcate in the customer a love for learning and a desire to excel at every level. The BANK also aims at equipping the customer with the intellectual and practical skills that are necessary to meet the challenges in the future to sum up, the mission of APANA-BANK, C.P. “to open doors and open minds” and prepare the ground for the future of the nation. The Online Banking suite provides a global accounting foundation that provides the all-private banks with electronic banking facilities. It allows client of private banks to carry out their day-to-day banking transactions. The Online Banking project is widely applicable with private banks. It can even be used in industries for their personal transactions (working).

II. REQUIREMENT ANALYSIS

The Developed system is an innovation in the area of private banking. In the existing system the number of staff required for completing the work is more, while the new system requires lesser staff generally the data entry process requires the data on the paper, which is then feed into the application by the operator while doing so; the data entry operator has to look into the paper again & again and thus the chances of in accuracies in the typed contents increases. Also, the process includes higher transportation cost, increased handling cost, more time delays, low accuracy, more usage of resources like registers, books, papers, etc. The project is implemented in Core Java as it provides the implementation of Socket and Server Socket classes that are used to connect distinct applications, hence the software’s required in the creation and execution of the project are j2sdk1.7 or Eclipse. As we know JAVA is a platform independent language so this software runs with JRE environment on any desired platform i.e., Linux, windows 9x, XP, or 2000 or any operating system.

As the project does not involve any database, its hardware requirements are minimal. Any System with Pentium P2 or above processor, 32MB RAM, 1GB Hard Disk, a LAN Card, and a CDROM is sufficient. Its network-based software so computers connected with any kind of mode (wireless, LAN connected etc.) will suit its requirements. It can also be run on a single machine for its demo use. Best suited in laboratory where we can run its server on any machine and many clients can use it simultaneously.

III. SOFTWARE ANALYSIS

A. Platform Independent

The concept of Write-once-run-anywhere (known as the Platform independent) is one of the important key features of java language that makes java as the most powerful language.

Not even a single language is idle to this feature but java is closer to this feature. The programs written on one platform can run on any platform provided the platform must have the JVM.

B. Simple

There are various features that make the java as a simple language. Programs are easy to write and debug because java does not use the pointers explicitly. It is much harder to write the java programs that can crash the system but we cannot say about the other programming languages.

Java provides the bug free system due to the strong memory management. It also has the automatic memory allocation and de-allocation system.

C. Object Oriented

To be an Object-Oriented language, any language must follow at least the four characteristics.

- 1) *Inheritance*: It is the process of creating the new classes and using the behavior of the existing classes by extending them just to reuse the existing code and adding the additional features as needed.
- 2) *Encapsulation*: It is the mechanism of combining the information and providing the abstraction.
- 3) *Polymorphism*: As the name suggest one name multiple form, Polymorphism is the way of providing the different functionality by the functions having the same name based on the signatures of the methods.
- 4) *Dynamic Binding*: Sometimes we don't have the knowledge of objects about their specific types while writing our code. It is the way of providing the maximum functionality to a program about the specific type at runtime.

D. Distributed

The widely used protocols like HTTP and FTP are developed in java. Internet programmers can call functions on these protocols and can get access the files from any remote machine on the internet rather than writing codes on their local system.

E. Portable

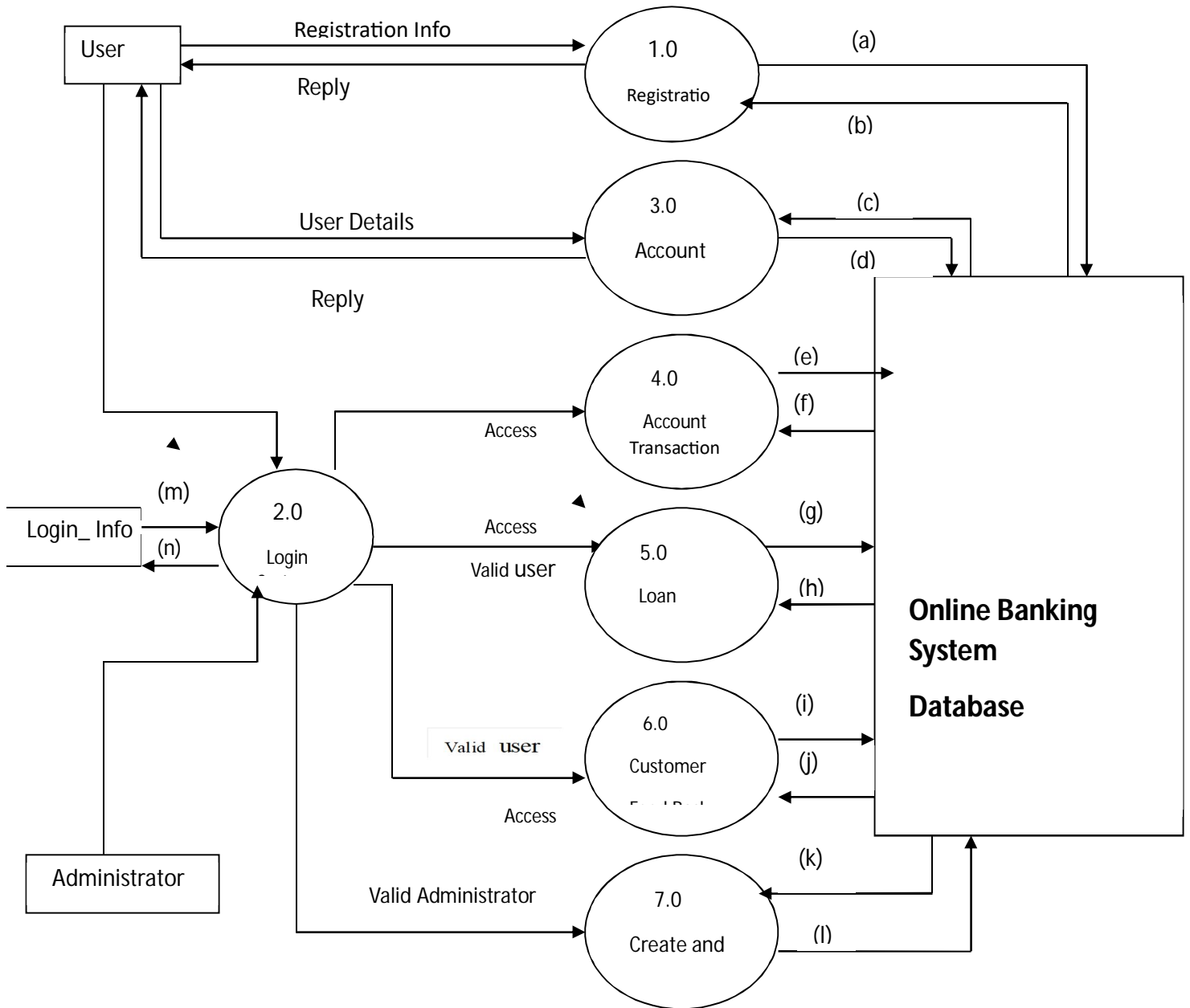
The feature Write-once-run-anywhere makes the java language portable provided that the system must have interpreter for the JVM. Java also have the standard data size irrespective of operating system or the processor. These features make the java as a portable language.

F. Dynamic

While executing the java program the user can get the required files dynamically from a local drive or from a computer thousands of miles away from the user just by connecting with the Internet.

IV. ARCHITECTURE DESIGN

- 1) *Step 1*: User Details means collecting the user details in my project I have used statistical datasets where I have considered the data and we will collect the details
- 2) *Step 2*: User will get response
- 3) *Step 3*: Personal Details
- 4) *Step 4*: Reply
- 5) *Step 5*: Account transaction entry
- 6) *Step 6*: Transaction Details
- 7) *Step 7*: loan Application



V. SYSTEM TESTING AND IMPLEMENTATION:

A. White Box Testing

This type of testing ensures that

- 1) All independent paths have been exercised at least once
- 2) All logical decisions have been exercised on their true and false sides
- 3) All loops are executed at their boundaries and within their operational bounds
- 4) All internal data structures have been exercised to assure their validity.

B. Basic Path Testing

Established technique of flow graph with Cyclomatic complexity was used to derive test cases for all the functions. The main steps in deriving test cases were:



Use the design of the code and draw correspondent flow graph.

Determine the Cyclomatic complexity of resultant flow graph, using formula:

$$V(G)=E-N+2 \text{ or}$$

$$V(G)=P+1 \text{ or}$$

$$V(G)=\text{Number of Regions}$$

Where $V(G)$ is Cyclomatic complexity,

E is the number of edges,

N is the number of flow graph nodes,

P is the number of predicate nodes.

Determine the basis of set of linearly independent paths.

C. Data Flow Testing

This type of testing selects the path of the program according to the location of definition and use of variables. This kind of testing was used only when some local variables were declared. The *definition-use chain* method was used in this type of testing. These were particularly useful in nested statements.

D. Loop Testing

- 1) All the loops were tested at their limits, just above them and just below them.
- 2) All the loops were skipped at least once.
- 3) For nested loops test the inner most loop first and then work outwards.
- 4) For concatenated loops the values of dependent loops were set with the help of connected loop.
- 5) Unstructured loops were resolved into nested loops or concatenated loops and tested as above.

VI. CONCLUSIONS

This project developed, incorporated all the activities involved in the browsing Centre. It provides all necessary information to the management as well as the customer with the use of this system; the user can simply sit in front of the system and monitor all the activities without any physical movement of the file. Management can service the customer's request best in time. The system provides quickly and valuable information. These modules have been integrated for effective use of the management for future forecasting and for the current need.

VII. FUTURE ENHANCEMENT

The system can be designed for further enhancement. This could also be developed according to the growing needs of the customer.

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