



DEVELOPMENT
OF DATA IN-
TEGRATION
MIDDLE-
WARE FOR
REMOTE
DATABASE

Puja Anil
Naval
Tanaya
Gajanan
Marathe
Neha Balvant
Patil
Ashwini
Sudhir Patil

OUTLINE OF
THE TOPICS

Background
Motivation
Problem
Definition
Objective
Middleware
Working
System
Requirement
Specification
UML Diagrams
Advantage and
Disadvantage

DEVELOPMENT OF DATA INTEGRATION MIDDLEWARE FOR REMOTE DATABASE

Puja Anil Naval
Tanaya Gajanan Marathe
Neha Balvant Patil
Ashwini Sudhir Patil

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- Introduction
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Background

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- There is no computerized system for storing and maintaining records of farmer.
- In existing system there is no facility for faster accessing of records.
- Government does not get the exact information through the current system.



Motivation

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- Government need to collect farmer's information for various purposes.
- Using existing system, records which need to government is not available within required time. And hence we decided to propose such system. Using this system we get better performance and accurate result related to farmer within specific period.



Problem Definition

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- Taking advantage on IT power of India for betterment of life of farmers through use of advanced technological platforms for providing easier services in automated matter.
- This would mutually win-win situation for all stakeholders including Farmers, IT industry and Government for decision making and market driven productivity, pricing and pace.



Problem Definition(cntd.)

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- Government will get the exact information through the computerized system.
- Transparency in records of farmer without any fraud which is oftenly occurred in existing system.



Objective

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- Data integration and data validation which is function of middleware used in our project.
- The second main objective of our project is to reduce inconsistency with the help of middleware which is oftenly occurred in existing system.
- Government will get more correct information of farmer than existing system give.
- Process becomes faster and easier than manual work.



Middleware Working

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What is mean by middleware ?

- Middleware is the "glue" that connects diverse computer systems appeared in the late 1980s to represent network connection management software.

Types of middleware which is used in our project

- RPC
- MOM
- TP Monitor.



Middleware Working

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In our project middleware does following functions:

- Data Integration
- Message Passing
- Data Persistence
- Reduce Data Inconsistency
- Reduce Missing Value.



System Requirement Specification

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- Hardware requirement-Requirement of computer only, no need of extra hardware.
- Software requirement-Install softwares such as Netbeans for coding purpose and Mysql storing records of farmer.
- Software that are required for our project-
JDK kit
NetBeans 7.1.2
MySQL Server 5.5



Functional Requirement and Non-functional Requirement

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List of functional requirements:-

- Add records
- Delete records
- Search records
- Display records
- Display results of queries

List of Non-functional requirements :-

- Authorization
- Validation
- Missing Value
- Jasper Report
- Tab effect



Result and Analysis

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Snapshot shows the Home page and Login part:





Result and Analysis

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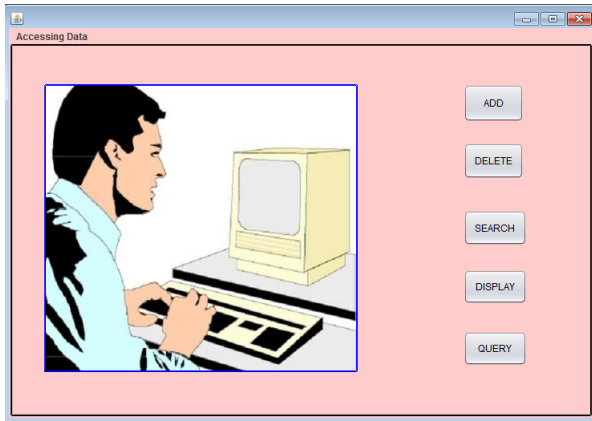
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Snapshot shows add, delete, search, display and query button so that we access the records of farmer.





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Snapshot shows the personal information of farmer:

ID	1
Name	Sudhir Kashinath Patil
Address	Plot No 52 ,Nandra
Village	Nandra
Pin code	425002
Country	India
Gender	<input checked="" type="radio"/> Male <input type="radio"/> Female
Birth Date	11-09-1976
Mobile Number	7878870956
Education	HSC
Age	40

NEXT CLEAR EXIT



Result and Analysis

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Snapshot shows the field details of farmer:

Field Details

ID	1
Crop1	Cotton
Crop2	Banana
Fertilizer And Pesticides	15:15:15
Irrigation	Sprinkler
Farm Sector	15 Acre

NEXT CLEAR



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Snapshot shows the annual details of farmer:

The screenshot shows a software window titled "Annual Details" with a light blue background. The window has standard Windows-style controls (minimize, maximize, close) in the top right corner. Inside the window, there are three input fields and two buttons. The first field is labeled "ID" and contains the value "1". The second field is labeled "Annual Income" and contains the value "80000". The third field is labeled "Source Of Selling" and is a dropdown menu currently showing "Krishi utpadan samiti". At the bottom of the form area, there are two buttons: "ADD" and "CLEAR".

Field Label	Value
ID	1
Annual Income	80000
Source Of Selling	Krishi utpadan samiti



Result and Analysis

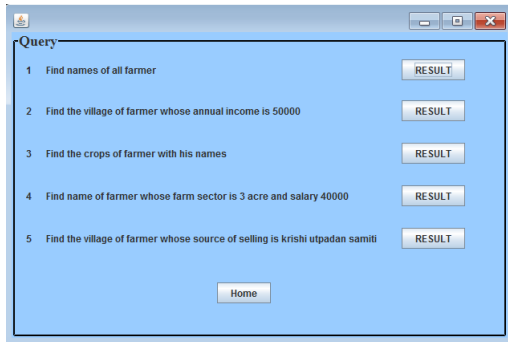
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Snapshot shows the various query related to farmer.





Result and Analysis


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Snapshot shows information of farmer in the form of jasper report which we select:

<div><h2>Jasper Report</h2><h3>Farmer Project</h3></div>			
ID	Name	Crop1	Crop2
1	Ramrao Bhimrao Patil	Buck Wheat (kaspas)	Watermelons
2	Sudhir Kashinath Patil	Paddy	Lemon
3	Chandan Sopan Patil	Cotton	Banana
4	Khushal Shamrao	Maize (makka)	Papaya
5	Raju Namdeo Patil	Potato	Sugarcane
6	Yogesh Vikram Patil	Coffee	Papaya



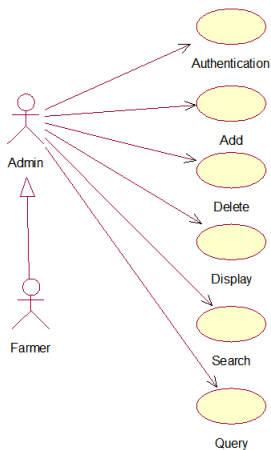
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Use Case Diagram for Farmer System:



UML Diagrams

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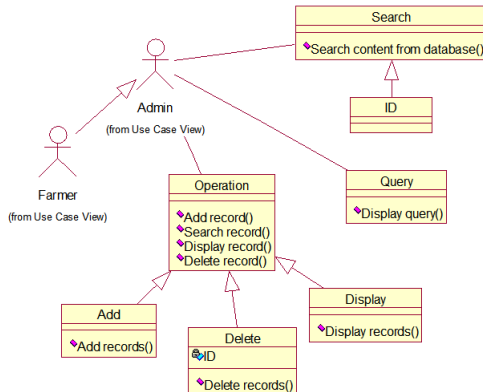
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Class Diagram for Farmer System:



Advantage and Disadvantage

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Advantages-

- Use of computerized system gives accurate and perfect results.
- Faster and easier process than manual system.
- There is no accessing of data without authorized user.
- Government required shorter time-period for accessing records of farmer.
- Give transparency in records without any fraud.

Disadvantages-

- Computer system must need power supply.



Conclusion

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- Our project reduces fraud which happened in manual system.
- Government will invent new policies and schemes by analysing information of farmer.
- Our project overcomes the problems of data inconsistency and data redundancy which often occurred in manual system.
- Avoid missing of data in computerized system which happened in manual system.



Future Work

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- Up till now, this project developed using two tier application for user, but in future, this project can be extended upto three tier architecture for user and it can be developed using web page design in client-server architecture using servlet and JSP code.
- In future, record will be also accessible to farmer for viewing information of other farmer having more income for improving its' own annual income.



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