

## A PROJECT REPORT ON

## "Gym Management System"

**Java(jdk 1.8)** 

#### **SUBMITTED TO**

Yashwantrao Chavan School Of Rural Development, Kolhapur.

in the partial fulfillment of MCA Part-II , Sem-IV (2021-2022)

## **Presented By**

Mr. Pakhale Satyajit Chandrakant. Miss. Kadam Amruta Shashikant.

UNDER THE GUIDANCE OF

Asst. prof. P. S. Vadar Sir



## <u>CERTIFICATE</u>

This is to certify that Mr. Pakhale Satyajit Chandrakant & Mr. Kadam Amruta Shashikant Are bonafied student of this college studying "Mater of Computer Science (M.C.A)-Part- IV during this year 2021-22". They have in completed their project work entitled Gym Management System, In JAVA satisfactorily. Their Project work shows their hard work and sincere efforts.

Place: . Date:



## <u>CERTIFICATE</u>

This is to certify that Mr. Pakhale Satyajit Chandrakant & Miss. Kadam Amruta Shashikant have satisfactorily completed their project work "Gym Management System", In Java. In the partial fulfillment of Mater of Computer Application (M.C.A IV) through "Shivaji University, Kolhapur" During the year 2021-2022

Place:

Date:

Project Guide Examiner

Mr. Parashuram Vadar

## Golden Gym, vita

# <u>CERTIFICATE</u>

This is certifying that Mr.Pakhale Satyajit Chandrakant & Miss. Kadam Amruta Shashikant of M.C.A IV from Yashawantrao Chavan School of Rural Development Kolhapur under Shivaji University Kolhapur. Have satisfactory completed the project work for our organization. They have honest and sincere in their work.

Their performance was excellent and we found their honest and dedicated towards their work. We wish them all the best for their future assignment and work.

Place:-

Date:-

Owner:- Mr.Dattatray Vasant Pawar A/P:- Vita, Tal:- Khanapur Dist:- Sangli.

## **DECLARATION**

We undersigned hereby declare that the report entitled "Online Telephone Billing System" for the award of Master Of Computer Application through Yashwantrao Chavan School Of Rural Development ,Kolhapur is our original work prepared under guidance of Mr.Parashuram S Vadar .The Empirical finding in this report are based on data collected by us.The matter presented in this report is not copied from any source.

Further,I declare	I have not	violated a	any of the I	nrevious	under	convright act	
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Place:Date:-

Mr. Pakhale Satyajit Chandrakant.

Miss. Kadam Amruta Shashikant.

## ACKNOWLEDGEMENT

Every project is always a scheduled, guided & coordinated team effort aimed at achieving common minimum goals. This minimum goal cannot be achieved without the guidance of guide.

It is with immense pleasure that we present our report to our project guide **Mr. Parashuram S Vadar.** We find no words to describe his efforts and total confidence in our potential to see this project to completion. He has always been a source of inspiration and atower of support boosting our moral beyond imagination. We would like to express our gratitude to our I/C Director **Prof. Dr. P. R. Pawar** for his continuing support and encouragement. We sincerely express our gratitude to our parents for their blessing for making this project successful.

Finally we are thankful to our Department and all our friends who have helped us to realize our efforts.

Thanking all of them again.

Place:	
Date:	

Thanking You!

Mr.Pakhale Satyajit Chandrakant Miss. Kadam Amruta Shashikant

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#### CHAPTER 1

#### INTRODUCTION

## 1.1 <u>Introduction and Organization Profile</u>

#### **Introduction:**

#### **What is Gym Management System?**

We all know health is a wealth. We do not need a fancy car, big apartment, a doctor degree without a health. Being healthy is a first thing we need to keep in mind. Because most of time our attitude depends on how we feel. Being healthy and fit gives us energy to do anything. So how do we stay fit? Be active, eat green and hit a gym!

Physical fitness is very necessary for a healthy and tension free life. Physical fitness includes diet, exercise and sleep. These three basic things have their own importance in each individual's life and everyone should be sensible with regard to these for a healthy life.

#### **Organization Profile:**

Our proposed "Gym System" is for those who runs a gym business. Before doing anything we did a decent research on major difficulties for gym owners. We examined carefully about how to make a huge registering system without failure as well as different functions for different kind of user depending on their privilege.

#### **Objectives**

First thing we wanted to do in designing is avoid boring formal user interface. So we tried to develop modern graphic user interface system. This application is for gym owners as well as for their staffs to register new member, and take body measurements and see the reports of financial and individual body progress. To use features of our application user has to enter password and username. If you want to visit and make changes in admin panel you have to unlock the admin panel by typing password in it. In the admin panel admin able to create username with password, set privilege to groups which means which user can do what operations like see report, take measurement etc. Also admin able to create groups and membership plans and apply it.

## 1.2 Existing Manual System

An Existing system refers to the system that is being followed till now. Presently all the resume Functionalities are done manually. This is making the person very difficult to keep track of the client and the members in the job seeker.

## 2.1.1 Drawbacks of Existing System

- a. Time consuming.
- b. Updating and Retrieval tasks are very tedious.
- c. Highly error prone.
- d. Easy Customer service is difficult.
- e. Lot of paper work results in lot of confusion.
- f. No direct role for the higher officials.

To avoid all these limitations and make the system working more accurately it needs to be **Computerized** 

## 1.3 Need of computerization

- ➤ The proprietor of the gym is the only managing the gym activities. He has to perform multiple tasks at a time which is very difficult.
- The proprietor has to keep the records of the members and trainers, batches and item purchases etc.
- ➤ This makes his job more complex. Thus to ease his job, the proposed system is developed.
- ➤ The proprietor will not have to keep different registers for different tasks, but by simply entering the records in computer, the records will be automatically saved on the disk.

#### \* Saving of man power and time:

Due to computerization there is a considerably saving in manpower & time, because all the transaction is carried out automatically. Also there is no need to transfer the entries to multiple registers. If one record's is all corresponding effect to the required registers is carried out automatically.

### \* Accuracy and Efficiency:

No wrong data is possible because of validation checks given by system.

## \* Early and correct decision making:

Because of fast communication, Reports making procedure is simplified and fast. The latest product information as well as the previous report can be made available to gym.

## \* Immediate response to queries:

Due to computerization the queries of items can be answered. Due to generation of difficult type of report.

## 1.4 Scope of System

"Gym System" is such which is needed all times for gym. It is useful to give details at any time to gym management.

The scope of the system includes adding new members, allocating batches, assigning trainers purchasing of new items, suppliers details, member details etc. This system is designed to include all information of members as well as proper validations are kept to avoid mistake during data entry process.

This system is computerized so it reduces the time for processing as compare to manual system.

Output generated by the proposed system is accurate and precise, which further help the user to produce the reports according to requirement.

The records are any time available to the manager of system for future use.

The records are maintained using the system so the registers are not required.

## 1.5 **Feasibility Study**

One of the important criteria of the new system is that if it is feasible i.e. within the scope of organization or not. There are three major areas:

- 1. Technical Feasibility.
- 2. Economical Feasibility.
- 3. Operational Feasibility.

#### 1. Technical Feasibility:-

It considers if it possible to develop a system on available hardware, software & manpower. It takes into consideration cost of hardware, software & technical equipment to see if the proposed system is technically feasible or not.

## 2. Economical Feasibility:-

Here the actual cost involved in the proposed system is calculated. It checks the cost benefits from the new system tangible & intangible benefits are acceptable or not.

## 3. Operational Feasibility:-

The system will be used if it is developed & implemented training of user, actual place of implementation and expenses of the training program are consider to see if it is operationally feasible for the organization. If it is carried by small no. of people familiar to information system, techniques & rules of business organization. The person must be skilled & experience in the system analysis & design process.

## 1.6 Hardware and Software Specification

## \* Minimum Software Requirement \*

➤ Operating System : windrow Xp or more

Front-End : JDK 1.8Back-End : Oracle 11g

➤ Reports : Jasper iReports(5.1.0)

## \* Minimum Hardware Requirement \*

➤ Processer
➤ RAM
➤ Hard-Disk
: core i3 and more
256 MB or More
➤ Hord-Disk
: 10 GB or More

Keyboard : Multi-Media 101 KeysPrinter : Laser/ Inkjet Printer

## 1.7 Language Specification

#### <u>Introduction to Front End Tool Visual Basic Dot Net</u>

#### **History and Introduction Java:-**

**The history of Java** is very interesting. Java was originally designed for interactive television, but it was too advanced technology for the digital cable television industry at the time. The history of Java starts with the Green Team. Java team members (also known as **Green Team**), initiated this project to develop a language for digital devices such as set - top boxes, televisions, etc. However, it was suited for internet programming. Later, Java technology was incorporated by Netscape.

The principles for creating Java programming were "Simple, Robust, Portable, Platform - independent, Secured, High Performance, Multithreaded, Architecture Neutral, Object-Oriented, Interpreted, and Dynamic". <u>Java</u> was developed by James Gosling, who is known as the father of Java, in 1995. James Gosling and his team members started the project in the early '90s.

Java was started as a project called "Oak" by James Gosling in June 1991. Gosling's goals were to implement a virtual machine and a language that had a familiar C-like notation but with greater uniformity and simplicity than C/C++. The first public implementation was Java 1.0 in 1995. It made the promise of "Write Once, Run Anywhere", with free runtimes on popular platforms. It was fairly secure and its security was configurable, allowing for network and file access to be limited.

## **Introduction to Oracle 11g:-**

Oracle Database 11g delivers economies of scale on easily managed low-cost grids, making it easier to reduce cost of downtime with maximum availability architecture, change IT systems faster using Real Application Testing, partition and compress data to run queries faster using less disks, securely protect and audit data, and enable total recall of data, and make productive use of standby resources with Active Data Guard.

This course addresses Oracle Database 11g Programming with SQL and is focused on:

- 1. Querying a Database with SQL
- 2. Conversion Functions, Conditional Expressions, Group Functions, and Joins
- 3. Manipulating Queries and Data
- 4. Using DDL, Views, and Schema Objects
- 5. Controlling User Access and Managing Objects
- 6. Managing Data Dictionary Views and Large Data Sets
- 7. Managing Time Zones and Datetime Functions

#### CHAPTER 2

### **Project Planning & Management**

#### 2.1 Introduction to Proposed System

Our proposed "Gym System" is for those who run a gym business. Before doing anything we did a decent research on major difficulties for gym owners. We examined carefully about how to make a huge registering system without failure as well as different functions for different kind of user depending on their privilege.

#### Benefits of new system

- 1. The main aim of this is to simplify the management procedure and total administration of Gym.
- 2. As the system comprises of various forms, it's very easy to handle product interaction.
- 3. Due to computerization, it is very easy to search the data of members and trainers as well as the item purchased for gym.
- 4. This system is very time saving and easy.
- 5. All work is done by single person, so one trained person can do the entire job.

### 1. Interaction & Integration

User can easily interact with this software because it is easy to understand and implement. The language used in user friendly.

## 2. Security

The software developed meets the security level .Only the regular user can interact with it. The security levels like specific user name and password are provided.

## 3. User Friendly

The Proposed system is user friendly, provides help messages and error message. The user is facilitated with all the requisite application required for his day-to-day working.

"Gym	Syste	m"
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#### 4. Scalable

The system follows open system architecture.

#### 5. Reliable

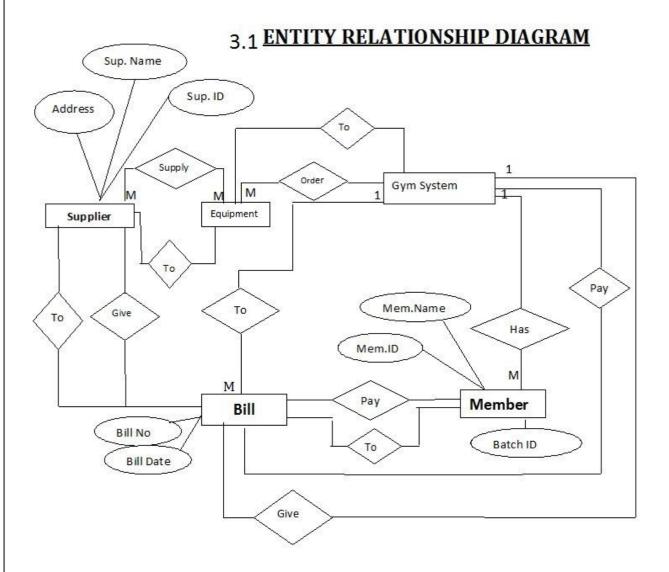
Output generated by the proposed system is accurate and precise, which further helps the user to produce the reports according to the requirement.

## 2.2 Information Gathering

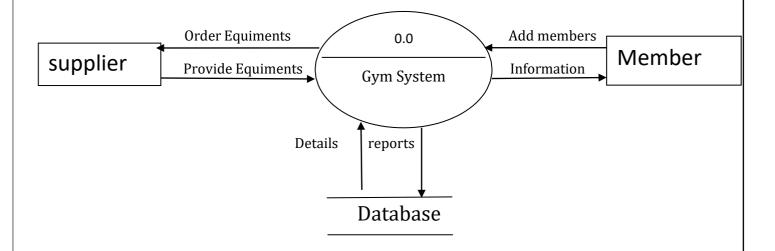
The information for our project is gathered by direct contacting with the owner of the Mr. Pawar , and also by collecting information from members as well as trainers of the gym. Information like which types of the equipments are available, how much of discount they offer. How they maintain the goods and how many items are available there in the gym, what kind of services they provide to customers etc.

## **CHAPTER 3**

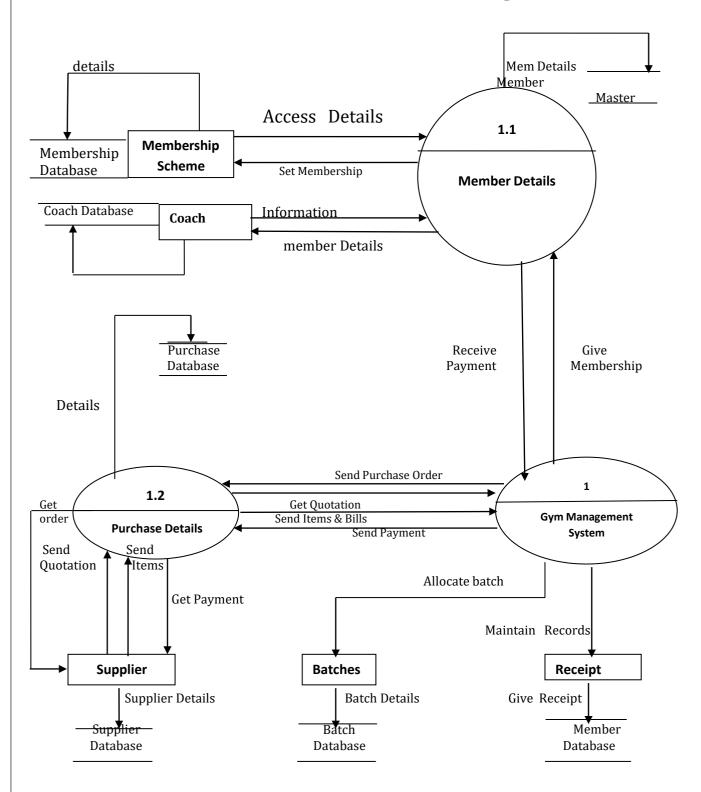
## SYSTEM ANALYSIS & DESIGN



## 3.2 Context Level Data Flow Diagram



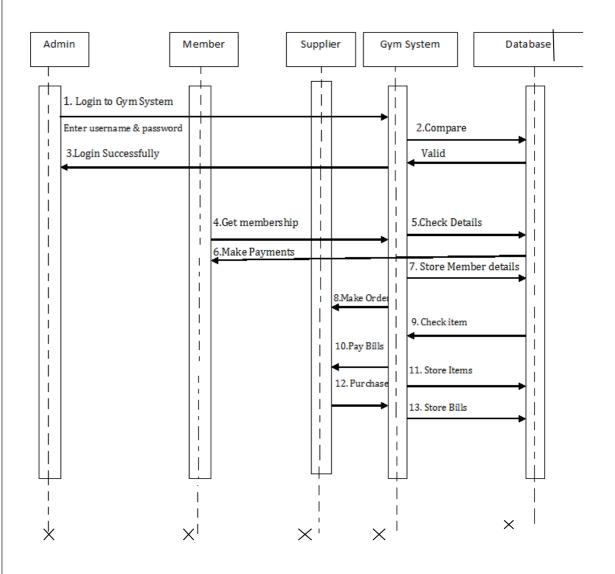
## 3.3 <u>First Level Data Flow Diagram</u>



## 3.4

## **Sequence Digram:-**

## Sequence Diagram



## 3.5 <u>Data Dictionary</u>

1) Table Name :- Login

**Description:** - To Store Username & Password.

Column Name	Data Type	Nullable	Default	Primary Key
USERNAME	VARCHAR2(30)	No	-	1
PASSWORD	VARCHAR2(30)	No	-	-

2) Table Name :- Memberinfo

**Description:** - To Store member Information

Column Name	Data Type	Nullable	Default	Primary Key
MEMBER_ID	NUMBER(30,0)	No	-	1
MEMBER_NAME	VARCHAR2(30)	Yes	-	-
GENDER	VARCHAR2(10)	Yes	-	-
CONTACT_NO	VARCHAR2(30)	Yes	-	-
MEMBER_ADDRESS	VARCHAR2(50)	Yes	-	-
MEMBERSHIP	VARCHAR2(30)	Yes	-	-
REGI_DATE	VARCHAR2(20)	Yes	-	-
ватсн	NUMBER(20,0)	Yes	-	-
WEIGHT	NUMBER(20,0)	Yes	-	-
HEIGHT	NUMBER(20,0)	Yes	-	-
INCH	NUMBER(20,0)	Yes	-	-
ВМІ	NUMBER(20,0)	Yes	-	-

## 3) Table Name :- Coach

**Description:** - To Store coach Information

Column Name	Data Type	Nullable	Default	Primary Key
COACH_ID	NUMBER(30,0)	No	-	1
COACH_NAME	VARCHAR2(50)	Yes	-	-
COACH_ADDRESS	VARCHAR2(50)	Yes	-	-
CONTACT_NO	NUMBER(30,0)	Yes	-	-

## 4) Table Name :-Batch

**Description:** - To Store batch Information

Column Name	Data Type	Nullable	Default	Primary Key
ВАТСН	NUMBER(20,0)	No	-	1
BATCH_TIME	VARCHAR2(30)	Yes	-	-
COACH_NAME	CHAR(30)	Yes	-	-

## 5) Table Name :- Suppliers

**Description:** - To Store supplier Information

Column Name	Data Type	Nullable	Default	Primary Key
SUPPLIER_ID	NUMBER(20,0)	No	-	1
NAME	VARCHAR2(50)	Yes	-	-
ADDRESS	VARCHAR2(50)	Yes	-	-
CONTACT_NO	NUMBER(20,0)	Yes	-	-

## 6) Table Name :-Memberscheme

## **Description:** - To Store memberscheme Information

Column Name	Data Type	Nullable	Default	Primary Key
MEMBER_ID	NUMBER(10,0)	No	-	1
MEMBER_NAME	VARCHAR2(50)	Yes	-	-
MEMBERSHIP	VARCHAR2(20)	Yes	-	-
STR_DATE	VARCHAR2(20)	Yes	-	-
EX_DATE	VARCHAR2(20)	Yes	-	-
COACH	VARCHAR2(50)	Yes	-	-
BATCH	VARCHAR2(20)	Yes	-	-
BATCH_TIME	VARCHAR2(30)	Yes	-	-
FEES	NUMBER(20,0)	Yes	-	-
DISCOUNT	NUMBER(20,0)	Yes	-	-
TOTAL	NUMBER(20,0)	Yes	-	-

## 7) Table Name :-Purchase

## **Description:** - To Store Purchase Information

Column Name	Data Type	Nullable	Default	Primary Key
INVOICE_NO	NUMBER(30,0)	No	-	1
SUPPLIER_NAME	VARCHAR2(50)	Yes	-	-
SUPP_CONT_NO	NUMBER(30,0)	Yes	-	-
PUR_DATE	VARCHAR2(30)	Yes	-	-
EQUIPMENT	VARCHAR2(30)	Yes	-	-
EQUIP_TYPE	VARCHAR2(30)	Yes	-	-
QUANTITY	NUMBER(30,0)	Yes	-	-
PRICE	NUMBER(30,0)	Yes	-	-
DISCOUNT	NUMBER(30,0)	Yes	-	-
AMOUNT	NUMBER(30,0)	Yes	-	-

## 8) Table Name :-Sale

## **Description:** - To Store sale Information

Column Name	Data Type	Nullable	Default	Primary Key
SALE_NO	NUMBER(20,0)	No	-	1
MEMBER_NAME	VARCHAR2(50)	Yes	-	-
CONTACT_NO	NUMBER(30,0)	Yes	-	-
ADDRESS	VARCHAR2(50)	Yes	-	-
EQUIPMENT	VARCHAR2(50)	Yes	-	-
EQUIP_TYPE	VARCHAR2(50)	Yes	-	-
QUANTITY	NUMBER(30,0)	Yes	-	-
PRICE	NUMBER(30,0)	Yes	-	-
DISCOUNT	NUMBER(30,0)	Yes	-	-
AMOUNT	NUMBER(30,0)	Yes	-	-
SALE_DATE	VARCHAR2(30)	Yes	-	-

#### 3.6

### **User Manual**

It is necessary to know that how the system should be used in this project involves the different input forms.

The project involves following forms as:

#### Gym System :

This screen shows different menu as

- ♦ Master
- ◆ Transaction
- ♦ Purchase
- ♦ Report

#### Master:

When you click on this menu then you get different menus within it which are like member master, coach master, batch master and supplier master etc.

#### Transaction:

When you click on this button you get a option form to define a membership scheme and also view receipt.

#### Purchase:

When you click on this menu button you get new entry form about the purchases made on behalf of the Gym.

#### Reports

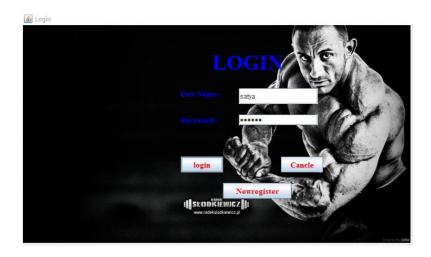
When you click on this menu you will get sub menus to generate the different reports which are needed for gym management. These reports are member report, supplier report, purchase report, coach report, batch report, payment receipt etc.

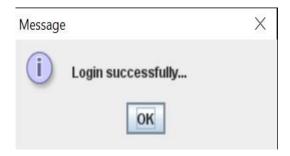
❖ Close: When you click on this button the application closes

## **CHAPTER 4**

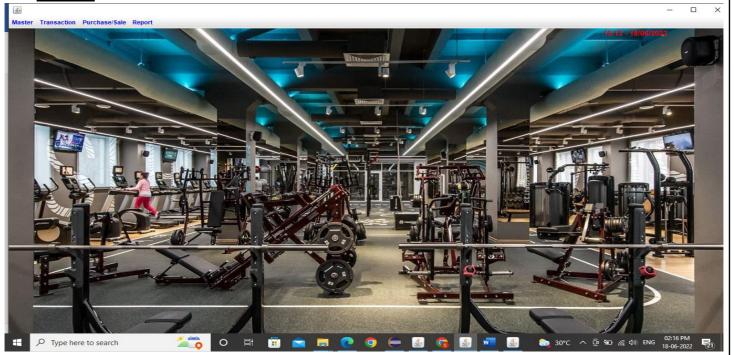
## OutPut:-4.1 Forms

## 1.Login Form

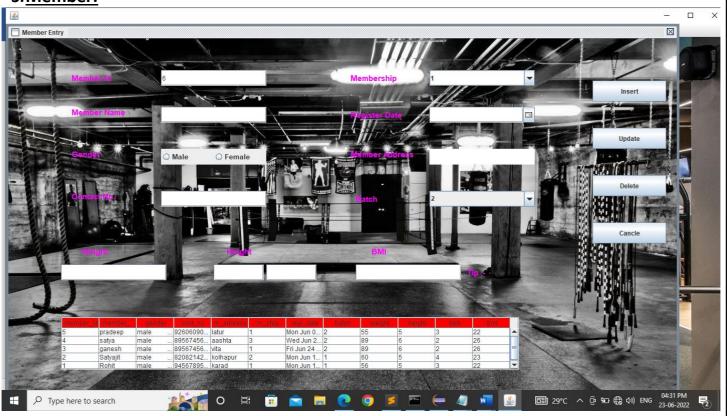




## 2. <u>Home</u>



## 3. Member:



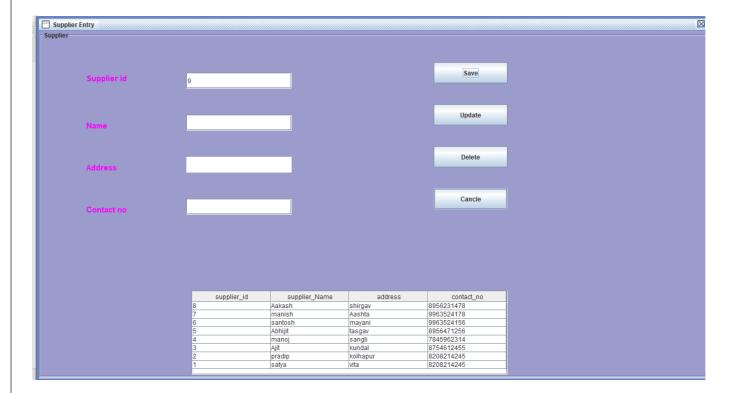
## 4.<u>Coach:</u>



## 5. <u>Batch:</u>



## 6. Suppliers Info:



## 7. Membership:



## 8. <u>Purchese:</u>

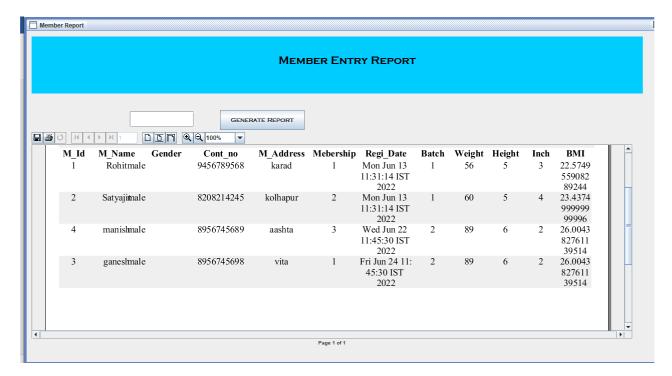


## 9.<u>Sale:</u>

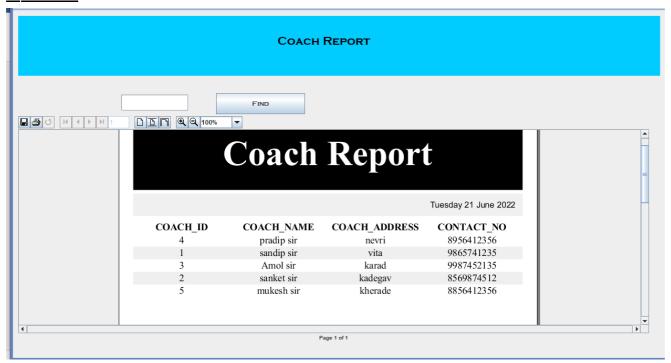


## 4.1 Report:

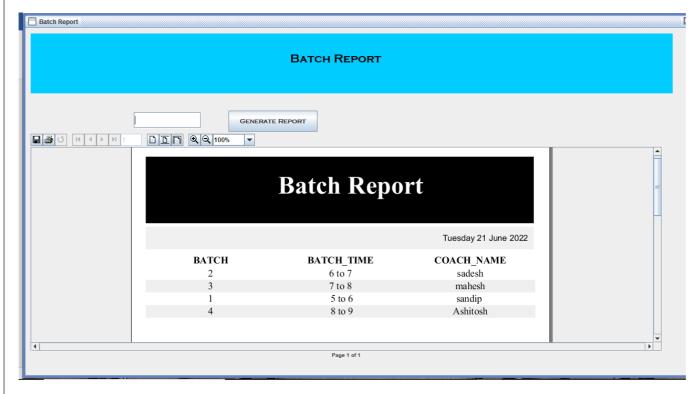
## 1.Member:



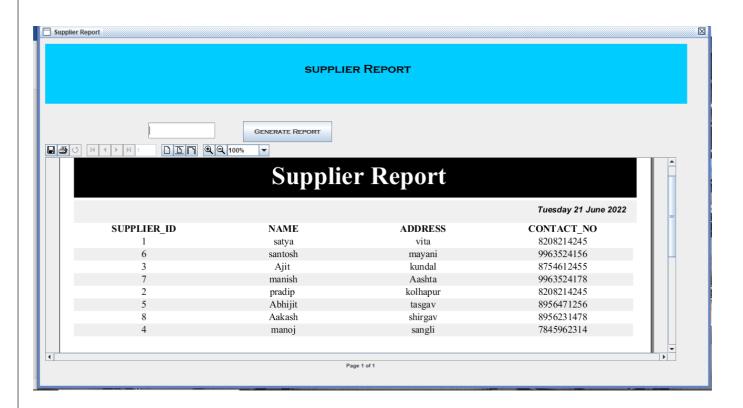
#### 2. Coach:



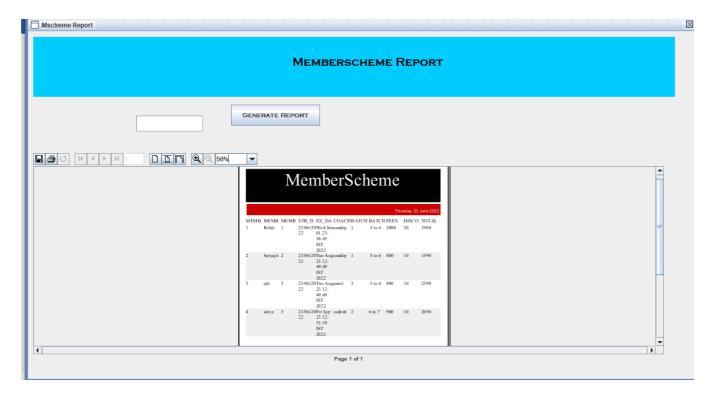
## 3.Batch:



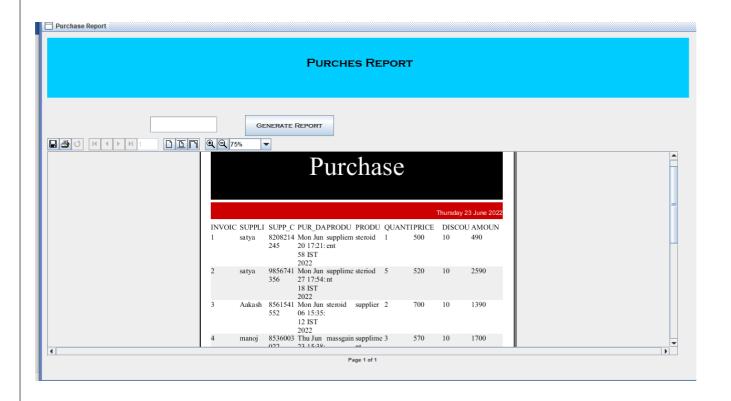
## 4. Supplier:



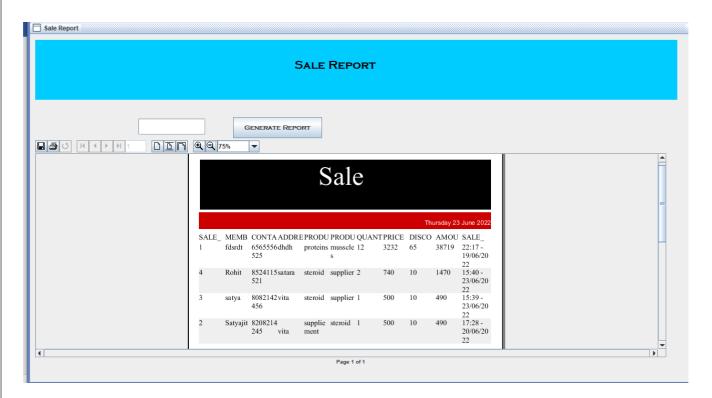
## 5. Memberscheme:



## 6. Purchese:



## <u>7. Sale:</u>



#### **CHAPTER**

### **System Testing**

Software Testing is a critical element of software quality assurance and represents the ultimate review of specification, design and coding, testing presents an interesting anomaly for software engineer.

## **Testing objective includes:**

- > A good test case is one that has a probability of finding an as yet undiscovered error.
- > A good test case is one that has a probability of finding an as yet undiscovered error.
- > A successful test is one that uncovers an undiscovered error.

### **Code testing:**

The code testing strategies examines the login of the program .the code test the logic of the program .here we have tested the system with all possible combination of data to find out errors .the code testing is then thoroughly with all possible data available in the library.

#### **System Testing:**

System testing test the integration of each module in the system. It also test to find discrepancies between the system and its original objective , current specification and system documentation .system testing has been conducting to test the integration of each module .the primary concern is the capability

## **Regression Testing:**

Regression testing is usually associated with features testing .the primary purpose of regression testing to make sure that a particular features works correctly .this is usually accomplished by creating test cases that test different possible scenarios associated with the feature .During regression testing the focus of the tester is on testing he functionality without much attention to performance.

## **Load Testing:**

Here in this testing the performance of the system is calculated by checking the system working after bulk of load is given in the system. This testing is done in order to look that the system can handle specified load and does its performance decreases after adding load to it.

"Gym System"

#### **CHAPTER**

### **Advantages**

## 1. Interaction & Integration

User can easily interact with this software because it is easy to understand and implement. The language used in user friendly.

### 2. Security

The software developed meets the security level .Only the regular user can interact with it. The security levels like specific user name and password are provided.

## 3. User Friendly

The Proposed system is user friendly, provides help messages and error message. The user is facilitated with all the requisite application required for his day-to-day working.

#### 4. Scalable

The system follows open system architecture.

#### 5. Reliable

Output generated by the proposed system is accurate and precise, which further helps the user to produce the reports according to the requirement.

#### **CHAPTER**

#### **Conclusion And Limitations**

#### Conclusion:-

Once the system was tested, the implementation phase started .A crucial phase in the in system development life cycle is successful implementation of new system design. Implementation simply mean converting new system design into operation .This is the moment of truth the first question that strikes in every one's mind that whether the system will be able to give all the desires results are expected from system. The implementation phase is concerned with user training and file conversion.

The term implementation has different meaning, ranging from the conversion of a basic application to a complete replacement of a computer system implementation is used here to mean the process of a converting the new or revised system design into an operational one aspect of implementation the other aspects are the post implementation review and software maintenance.

#### There are three types of implementations:-

- ❖ Implementation of a computer system to replace a manual system.
- ❖ Implementation of a new computer system to replace an existing one.
- ❖ Implementation of a modified application to replace an existing one.

#### Limitations:-

- The future of the project looks more promising. With the addition of some more features the quality of the project will be really developed enough to cater the needs of any kind of company.
- The capability of allowing client server interface if included in the project will allow multiple branches of a sister concerned company store the data set some center location from where different client systems can store and retrieve the data.
- This will thus also allow wide scale operation of the software.
- Company cannot view the availability of the stock directly.
- Company will not see the delivered goods.
- Company cannot claim insurance for such goods which can be degradable in limited times.
- The insurance amount should be paid before the given date otherwise the insurance will not be claimed.
- Goods carriage permit should be renewed before the 24 hours of expiry date.

## **Future Enhancement**

- 1. In future it is possible in this software to provide transport of goods for multiple customers at a time.
- 2. If there is any problem to operate on software there will be help provided to overcome the problems.
- 3. It is not sure but in future it will be developed for multiuser purpose.
- 4. It is also possible to access daily rate of transport from internet to make the transaction easy.

## **CHAPTER**

## **BIBLIOGRAPHY**

This bibliography contains all books, articles and websites that are referred in this project for programming purpose we have used the following.

#### **Books:**

✓ Advance Java

(Prajakta R. Mane)

√ swing\_tutorial-Tutorialspoint.com

#### Websites:

- ✓ www.Javapoint.com
- ✓ www.Stackoverflow.com
- ✓ <u>www.oracle.com</u>
- ✓ <u>www.YouTube.com</u>