**Project Abstract-Java8**

**Topic 1: Attendance Monitoring System (AMS) For Globsyn**

**Technologies Limited Introduction**

The Attendance Monitoring System (AMS) will primarily aim to automate the entire attendance taking process on a daily basis for the employees of Globsyn Technologies Limited. Through this system, the employees will enter their daily attendance record instead of the manual process being conducted at the present moment. This will speed up the attendance taking process as well as facilitate efficient storage of data. The validation checks applied at the application level will ensure that the system will disallow any improper records, attendance records of a person being entered by another person and so on.

**Other Details**

• Casual Leave (CL) – 12 casual leaves are allowed per year .

• Privileged Leave (PL) - 30 privileged leave are allowed per year which gets accumulated .

***Three types of user group exists as below –***

• Regular Employee

The employees who have fixed employee Code, Level, Designation, Under a Salary Structure and eligible for CL & PL (After One Year).

• Pupil

Pupils don’t have any CODE, LEVEL & Designation. They are grouped under no working pay condition. They are not eligible for CL & PL.

• Consultant

Consultants are for contractual services with consolidated pay scale. They don’t have any CODE, Level and designation.

Besides there will be the super user (administrator) who will be responsible • for administrative responsibilities like adding, deleting modifying user • accounts, generating reports etc. These activities are not to be performed by any other type of user.

***Role of ADMIN (Super User)***

• Attending to the new employee request for a particular user

• Identification of User level (Regular Employee, pupil, consultant etc.)

• The overall checking of the member name to verify whether the members are

already registered or not.

• Checking of the total no. of working days per week (6 days )

• Checking of the leave request (PL.CL) and set the status.

***Role of Employee***

***.***Give attendance.

.Raise Leave Request.

.View the status of the leave request.

**Topic 2: Banking System**

The objective of this project is to maintain the accounts like saving account, withdrawing, depositing money and applying loan to the user. Bank provides account number to the customer for dealing transactions in the bank. At first a user registers himself/herself as customer. After that account can be opened. A customer can open more than one account.

**Users of this project are**

• Accountant

• Customer

**Roles of Accountant are**

• Login using his/her username and password

• Adding new account for customer

• Editing already available account

• Removing the account by using account number

• Viewing particular account details by giving account number

• Viewing all the account details

• Taking care of deposit and withdrawal operations

**Roles of Customer are**

• Login using his/her username and password

• Transfer the money from his account to other account

• Checking the transaction history

**Topic 3: Bus Ticket Reservation System**

The main objective of this project is to cater the needs of the passenger who are traveling from one point to another. This project have contains essential modules like Customer and Administrator. User can book / reserved his ticket one day before.

**Users of this application:**

• Customer

• Administrator

**Roles of Customer are:**

• Customer can book ticket by selecting Source and destination

• Customer can cancel ticket

**Role of Administrator are:**

• Login his username and password

• Provide details like Bus Name, Bus Route, Bus Type – AC/non-AC, seats,

departure time and arrival time

• Provide the confirmation of the seat to the Customer

• Provide the Contact persons details after confirmation of the seat

**Note:** Once the seat is booked, automatically the seat would be deducted.

**Topic 4: Hotel Management System (HMS)**

The HMS. is a highly automated system for Hotel Billing, Visitor's Record and Accounting with detailed reports generated about the visitors and rooms you have . HMS has got powerful features to take care of all requirements of a large / medium hotel & restaurant and serves as a complete Management Information system (MIS).

**The users of the software are the staffs of Hotels.**

**Main Functions**

• Enter new Room Record with all room details.

• View information of all the rooms.

• Update Room rate.

• View room details according to category (single Bedded AC, Double Bedded AC,

single Bedded Non AC, and Double Bedded non AC.)

• View various tariffs.

• Store Check in details, Check out Details.

• Display Bill of Customer.

• Search for availability of a room.

Added Functionality will be -

• Collection report- month wise.

• Room wise Occupancy Report

**Topic 5: Mobile Bill Generation Application**

Develop an application to generate monthly bills for the post-paid subscribers of a

telecom operator. The bill must contain the following details:

• Mobile number of the customer.

• Name of the customer.

• Address of the customer.

• Tariff plan / rental charges.

• Monthly usages in minutes + seconds.

• SMS sent.

• Add 12.24% service tax on the total amount.

Note: Call charges (mobile to mobile – own network, other network, mobile to land line,

STD. ISD) vary depending on the tariff plan.

The application should also:

• Insert/update usages details of a customer.

• Accept/update details of tariff plan.

• Accept updates / details of an existing customer.

• Add new customers/Delete details of customers.

• Generate usages report of a customer.

**Topic 6: Retail billing**

Develop an application that will automate the generation of retail bill of any departmental store for any customer. The bill must contain the following details:

• Bill No

• Bill Date

• Item code

• Item description

• Price per unit

• Quantity

• Discount if any

• Total

The bill should be generated in a proper format.

The application should also provide the facility:

• Maintaining stock of the various items that are available.

• Furthermore whenever the stock of any item goes below the reorder level an appropriate warning message should be flashed on the screen.

• The application should also have the provision of generating a day end report of all the transactions that have taken placed.

• Month end report product wise.

• Provide facility for membership.

• Calculate discount for membership card holders.

**Topic 7: Video Library Application**

ABC is a large video library located at Mumbai, which lends laser discs to customers. The video library needs to maintain a record of its customers and the rental transactions in a database. Hence, the library wants you to develop an application using JAVA in order to computerize its rental system. The library lends out laser discs on a rental basis only to its members. Laser discs are hired out for a maximum of three days after which the Penalty charges are included in the invoice. Hiring charges for each laser disc is RS. 50/-.

Main Functionalities are-

• Add new Member. Every member must have one unique member ID. The details about the member need to be stored.

• Delete any existing Customer.

• Add new movie (CD) information. Every movie must have one unique movie ID. The details of all discs are stored in the database. The movie details include movie rating (G-general, PG-Parental Guidance etc). The library has only 3 copies of each movie.

• Delete any Movie (CD) Information.

• Every transaction records need to be stored i.e when a disc is rented and disc is returned then they must be saved. Every transaction records has an invoice number, which is generated automatically, scheduled date of return, actual date of return and fine amount if required . The scheduled date of return is the date on which the disc is rented plus two days. If the disc is not returned by the scheduled date, then a fine is levied, which is RS. 10/- per day of delay per disc. Actual date of return is the date when the disc is returned to the library..

.• A monthly transaction report also has to be maintained. Rental Transaction Movie Code Movie Title No. of times Rented Total Charges.

**Topic 8: Automated Car Rental System**

This is an automated application software for Car booking . This application is used in the Car rental Company for managing the Car booking efficiently.

The users of the systems are-

1. Administrator.
2. Customer

The role of the Administrator are-

1. Add new cars in the car list.
2. Remove damaged cars from the car list.
3. Define the hourly rate.
4. Define the rule for charge.
5. Update the hourly rate.
6. View the available cars.
7. View all the customers.
8. Update customer info.
9. Delete a customer.
10. Book the cars for the customer.
11. View the collection report(monthly/day wise)

The role of the Customer are-

1. Register themselves as customer of that Car Rental company.
2. Search the cars according to the type and requirement.

**Topic 9:Automated Auction System**

Automated Auction System is an Application Software that is used for the buying and selling of products. This software can be used by the auction companies who arrange the Auction. Various buyers and sellers are registered in the Auction company. Following are the lists of various users of the system and also the role of the users.

Users are-

1. Administrator.
2. Buyer
3. Seller

Role of the users-

1. Administrator
2. View the registered buyer list.
3. View the registered Seller list.
4. View the daily dispute report.
5. View the daily selling report.
6. Solve the dispute report.
7. Seller-
8. Register himself or herself as seller.
9. Create list of items to sell.
10. Update Item List-Update price etc.
11. Add new Item in the list.
12. Remove items from the list.
13. View the sold Item history.
14. Buyer
15. Register himself or herself as Buyer.
16. Search and view Items by category.
17. Select and view all the buyers and also their Items category wise.
18. Selects Items to buy.

**Topic 10:Employee Appraisal System**

About the Company

Global Information System Pvt. Ltd. is a reputed name in the software service industry. It has a wide span of providing services to a variety of facets. And, while doing so, they have divided the entire operation to execute through three function groups, each group mapping to its department.

GIS is highly service oriented. They do understand and appreciate the importance of customer satisfaction and employee performance. And, to ensure this, they have implemented quarterly appraisal system to identify the performance level of the employee and thereby ensure better service to the clients by improving the former.

Appraisal Process

GIS follows a linear appraisal system in which, the Supervisor / Manager appraises the subordinates. For this, they have 5 Categories to appraise on, on a scale of 1 – 5, being 1 as the Best and 5 as the Worst. The objective of the score is to be as low as possible, to ensure best performing employee.

Each Category is sub-divided further into 10 Sub-Categories, which maps to individual quality / expertise level of the employee. It is the sub-categories that are actually rated (on a scale of 1 - 10). The average rate of the sub-categories will constitute the rate for a category.

The average rate of the categories will yield the Grade of the respective employee. Each Grade (A -E) will attach to the exact percentage of Salary Hike. Yearly Salary hike % will be calculated as Grade.

Business Rules

1. Employee with Grade E in a year is not eligible for any annual salary hike. Issue an alarm to the employee
2. Announce the employee(s) as Best performing employee(s) who score(s) 4 Grade A in a year.

Design

1. Identify the departments within the organization. Scope should be there to modify departments /department definitions.
2. Employee – Add new employees. Scope to modify Employee details (for example, marital status, Technology expertise, experience in each Track, etc.)
3. Appraisal Parameters -(All parameters should be dynamic )
   1. Identify Grades. Identify hike percentages. Map Grades with hike %.
   2. Identify Categories
   3. Identify sub-categories

Parameters may change in definition during successive years. However, for a year consider them to remain constant.

1. Appraise employees
2. Generate Reports with the following aspects:
   1. Individual appraisal report – Yearly, Issue suggestion for improvement.
   2. Best performing employees – Yearly.
   3. Worst performing employees – Yearly.

**Topic 11:Automated Student Registration System**

In Globsyn, every year technology trainings are conducted during summer and winter season. Students are enrolled in different courses under different technology track like- Android, Java ,JEE, PHP, Oracle etc. This automated application help Globsyn to enroll students efficiently, create batches under a course and allocates the students in a batch .

The main user of the system is – Administrator.

Roles are-

1. Define Courses for Winter and Summer Training.

2. Update Fees of course.

3. Delete a course from any Training session.

4. Search information about a course.

5. Create Batch under a course.

6. Allocate students in a Batch under a course.

7. Update total seats of a batch.

8. View the students of every batch.

9. Change course of a student.

**Topic 12: Crime Information Management System**

The main aim of this system is to maintain and manage the detail information of the crime happened in an area under a particular police station. This software will be used by the police officials in the Police station. Following information will be stored in this software-

1. Date and Place of the Crime.

2. Description of the crime i.e Robbery or Theft or Homicide etc.

3. Victims.

4. Detail description of the crime that is in case of Robbery , the wealth that was stolen or in case of Homicide, the person(s) killed etc.

5.The names of the main suspected.

The information about the criminal is also to be maintained. The information will be as follows:-

1. Name of the Criminal.
2. Age and Gender.
3. Address.
4. Identifying mark in the face.
5. Area of the crime from where the criminal was first arrested.
6. Attached to which crime.

Searching facility for criminals and crimes is also available in this software. The status(solved or not solved) of each crime is also maintained in this software. After solving the crime,the status will be changed.

The software will also display the crimes and criminals area wise or police station wise. The Software will produce report for -

A. Number of solved and unsolved crime.

B. Number of crimes recorded in the current month.

**Topic 13:Automated Missing Vehicle Tracking System.**

Abstract:-

Thousands of automobiles are lost each year in the state and thousands of automobiles are also recovered by the Police from when they catch the culprits or even when the culprits leave the vehicles they have stolen after they have used them. The “Automated Missing Vehicle Tracking System” will register the complaints of the missing vehicle and generates the unique Registration Number for each complaints. All the complaints can be registered in the Police Station and the complaints are categorized area wise.

Processes Involved:-

A. Access Management process to allow authorized Police and data entry personnel.

B. Lost Vehicles Information setup , maintenance and Searching Processes.

C. Recovered Vehicle Information setup, Maintenance and Searching Processes.

D. Handover Process to the owner setup and Maintenance .

Users:-

1. Administrator.

2. Data Entry Operator.

Role of the Users:-

Data Entry Operator

a. Lost vehicle Information entry.

b. Recovered Vehicle Information entry.

c. Searching of lost vehicle/recovered vehicle.

d. Handover process data entry.

**Topic 14: Lead Management System**

LMS is a leading marketing management solution that integrates all aspects of enterprise marketing into a single easy-to-use platform. LMS gives you the ability to better manage the qualification, enrichment, maturation, distribution, and feedback loop on leads—leading to improved closure rates and increased marketing ROI. With LMS solution, you can get higher-quality leads to the right people at the right time and get greater visibility into what happens afterward.

The functionality includes:-

1. New lead entry.
2. Follow up of lead and entry of the follow up entry.
3. Billing/Admission
4. Report generation-

a. Details of Monthly lead.

b. Details of Monthly Admission.

c. Rate of lead turn up to the Admission .

**Topic 15: Lodge Booking System**

This is an automated system for lodge booking for West Bengal tourism. West Bengal Tourism has lodges in different locations like- Bakkhali, Digha , Darjeeling etc. These lodges are booked through the “Lodge Booking System Application”. A tourist can book the rooms in a lodge after selecting the location. For each location there is only one lodge. Through this application ,following functions can be done-

1. Entry of new lodge information.
2. Updation of existing lodge information.
3. Entry of Tariff
4. Updation of Tariff.
5. Searching of Tariff /available rooms.
6. Booking of rooms.
7. Cancellation of rooms.
8. Display available rooms according to category.(3-Bed Room/2-Bed Room/Dormitory/Ac/Non-AC etc.)
9. View Tourist list currently staying in a lodge.

There is only one type of user in the system- Administrator.

**Topic 16: Tender Management System**

Whenever a company requires a service / merchandise , a tender is floated. Company maintains an empaneled list of Vendors. An empaneled vendor can only bid for a tender. Every vendor can bid only once against each tender. Against each tender there may be bids from several vendors. The company will then select the most suitable bid and places the order to that vendor.

There are 2 users in the system-

1. Administrator and
2. Vendor

The Role of Administrator is-

1. Create new Vendor.
2. View all the vendors.
3. Create new tenders.
4. View All the Tenders.
5. View All the Bids of a tender.
6. Select a Bid.

The Role of a Vendor is-

* 1. View all the current Tenders.
  2. Place a Bid against a Tender.
  3. View status of a Bid(Whether Selected or Not)
  4. View his own Bid History.

**Topic 17:MGNREGA**

MNREGA(The Mahatma Gandhi National Rural Employment Guarantee Act ) is a scheme by which

unskilled people of rural India are guaranteed to have 100 days of paid work.

Main objective of this project is to manage employments offered through this scheme .

There are two users of this system : a) BDO (Block Development Officer) b) Gram Panchayat member

System works in the following way:

A project is created by BDO . Project is where people are assigned to . Before assigning anybody to a

project(done by Gram Panchayat member) his/her data must be inserted into the system .

**Functions of BDO**

* 1. Login into their account.
  2. Create a project.
  3. View List Of Project.
  4. Create new Gram Panchayat Member(GPM).
  5. View all the GPM.
  6. Allocate Project to GPM
  7. See List of Employee working on that Project and their wages.

**Function of Gram Panchayet member**

* 1. Login into their Account.
  2. Create Employee.
  3. View the Details of Employee.
  4. Assign Employee to a Project.
  5. View total number of days Employee worked in a project and also their wages.

**Topic 18: Course Monitoring System**

In an educational Institute there are several courses running parallel every day. For every course there are several batches at same/different time. Every course has a session wise/day wise schedule. It will be difficult for the Faculty Head to know the status of every batch i.e what is the session taught at each day in a batch.

So the Automated Course Monitoring System will keep the records of all the courses,batches,faculties and the daywise update for every batch. It will also help the Faculty Head to maintain the course plan .

**Types of users:**

. Administrator.

. Faculty

**Role of Administrator-**

1. Create ,Update, View Course.
2. Create ,Update,View Batch. A batch is related to a course.
3. Create , Update, View Faculty.
4. Allocate faculty to a batch.
5. Create ,Update,View Course plan .
6. View the Day wise update of every batch.
7. Generate Report for every batch.

**Role of Faculty**

1. View the Course Plan
2. Fill up the day wise planner.