**MINI PROJECT REPORT ON STUDENT PERFORMANCE MANAGEMENT SYSTEM**

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS

FOR THE AWARD OF THE DEGREE IN

**BACHELOR OFCOMPUTER APPLICATIONS OF MAHATMA GANDHI UNIVERSITY**

**KERALA**

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***Certificate***

This to certify that the report entitled

**Student Performance Management System**

Has been submitted by

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Examiners 1.

2.

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# INTRODUCTION

## Overview of the system

The **Student Performance Management System** is a web-based application designed to streamline the tracking and management of students' academic performance throughout a semester. It simplifies the traditionally complex process of monitoring grades, attendance, and other performance metrics by centralizing all relevant data in a single platform. This system provides an intuitive, user-friendly interface that allows teachers and administrators to input, manage, and analyze student data efficiently. By automating tasks such as grade entry, attendance tracking, and report generation, SPMS enhances data organization, minimizes errors, and enables real-time performance monitoring. Its secure, centralized structure ensures data integrity and confidentiality, while offering a comprehensive view of student progress, making it easier for educators to identify areas for improvement and support student success.

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# REQUIREMENTANALYSIS

## Problem definition

Tracking and managing the academic performance of students in schools and colleges has long been a labor-intensive and error-prone process for educators. Traditionally, teachers and administrators rely on manual methods, such as paper records, spreadsheets, or disparate systems, to monitor student grades, attendance, and overall performance. These outdated approaches not only lead to inefficiencies and time-consuming data entry but also increase the likelihood of errors, such as lost records or miscalculations. Furthermore, with the growth of educational institutions and the increasing number of students, it becomes even more difficult to keep these records organized and accessible. This disorganization can result in delayed decision-making and challenges in providing timely feedback to students, affecting both academic performance and student progress tracking.

Additionally, the absence of a centralized system means that educators lack a holistic view of students' academic data, limiting their ability to analyze trends or identify students in need of intervention. Teachers must often juggle multiple tools to access attendance records, grades, and other performance metrics, making it harder to get a comprehensive understanding of a student’s academic journey. Without real-time access to performance data, teachers and administrators may miss opportunities for early intervention and support for students who are struggling. In this context, a more effective solution is needed—one that can centralize student performance data, streamline the data entry process, and provide educators with real-time analytics and insights into student performance.

## Select the software development model

I select the iterative enhancement model for my project as the system development tool. The iterative enhancement model in software engineering

combines elements of the linear sequential model with the iterative philosophy of prototyping.

In this model, the software is broken down into several modules which are incrementally developed and delivered. Firstly, the development team develops the core module of the system. After that, it is refined into increasing levels of capacity of adding new functionalities in successive versions.

## Requirement specification

##### Existing system

In many educational institutions, the existing system for managing student performance is outdated, relying on manual processes or fragmented digital tools. Teachers often input student grades, attendance, and performance records by hand, using paper documents or spreadsheets. This manual data entry not only increases the chances of errors but also makes it difficult to maintain consistent and accurate records. As student numbers grow, managing this data becomes even more time-consuming, leading to inefficiencies in the system and frustration for educators who must spend valuable time on administrative tasks.

One of the key problems with the current system is its lack of integration. Grades, attendance, and other performance metrics are typically managed using separate tools or platforms that do not communicate with each other. For instance, attendance might be tracked in one system, while grades are recorded in a different application. This fragmentation makes it challenging for teachers to gather and analyze all relevant information about a student’s academic progress in one place. As a result, teachers must spend additional time switching between platforms, which disrupts workflow and slows down the decision making process

Another major limitation of the existing system is the absence of real-time data tracking. Teachers typically update grades and attendance at specific intervals, such as weekly or at the end of a grading period. This means that student performance data is often outdated, preventing teachers and administrators from identifying issues in real time. If a student begins to struggle academically or has frequent absences, the delay in updating records means that timely interventions may not occur. This can lead to students falling further behind before their challenges are addressed.

Data accessibility is also a significant challenge in the current system. Teachers, students, and parents often find it difficult to access performance records easily. For teachers, retrieving student information can involve sorting through multiple records or files, which takes time and effort. Students and parents, on the other hand, usually have to wait for formal report cards or scheduled meetings to receive updates on academic progress. This lack of immediate access creates communication gaps between teachers, students, and parents, making it harder to stay informed about student performance throughout the semester.

## Justification of proposed system

The proposed Student Performance Management System (SPMS) addresses the limitations of existing methods by providing a centralized, web-based platform that streamlines the management of student performance data. Traditional systems often rely on manual processes and fragmented tools, leading to inefficiencies, errors, and a lack of cohesive access to information. By automating data entry and consolidating grades, attendance, and other performance metrics into a single system, the SPMS significantly reduces administrative burdens for educators. This allows teachers to focus more on their primary responsibility—supporting student learning and engagement—rather than spending excessive time on record-keeping.

One of the standout features of the SPMS is its capability for real-time data tracking, which is crucial for timely interventions. Unlike existing systems that may only update information at regular intervals, the SPMS allows for immediate input and access to performance data. This ensures that educators can quickly identify students who may be struggling academically or who have attendance issues. With up-to-date information, teachers can implement targeted support and interventions, enhancing the chances of student success and ensuring that no one falls through the cracks.

Additionally, the SPMS fosters greater accessibility and transparency for all stakeholders in the educational process. Teachers, students, and parents can easily access and monitor performance data, facilitating open communication and collaboration. This level of engagement empowers students to take charge of their academic journeys and keeps parents informed about their children's progress. Moreover, the inclusion of advanced analytical tools allows educators to generate detailed reports and insights, enabling them to assess teaching effectiveness and identify trends in student performance. Overall, the SPMS represents a modern solution that enhances educational practices, promotes collaboration, and ultimately leads to improved academic outcomes for students.

## Benefits of Proposed System

The proposed Student Performance Management System (SPMS) provides numerous benefits that address the inefficiencies and limitations of existing methods for tracking student performance in educational institutions. One of the most significant advantages of the SPMS is its centralized data management capability. By consolidating all relevant information—such as grades, attendance, and behavioral records—into a single platform, the system eliminates the confusion and inefficiencies associated with using multiple tools or manual record-keeping. This centralized approach allows educators to easily access and manage data, significantly reducing the administrative burden on teachers and enabling them to devote more time to supporting student learning.

Another key benefit of the SPMS is its real-time tracking and reporting functionality. Unlike traditional systems that update data at scheduled intervals, the SPMS allows for instant input and access to student information. This feature is crucial for promptly identifying students who may be struggling academically or experiencing attendance issues. With real-time data, educators can quickly implement targeted interventions and support measures, ensuring that students receive the help they need in a timely manner. This proactive approach fosters a more responsive educational environment where student success can be prioritized.

The user-friendly interface of the SPMS is designed to simplify data entry and navigation for all users, including teachers, students, and parents. This accessibility encourages widespread adoption and engagement with the system, regardless of individual technical proficiency. Enhanced communication is another significant advantage of the SPMS, as it facilitates better interactions between educators, students, and parents. By providing easy access to performance data, the system allows students to track their own academic progress while keeping parents informed about their child’s performance. This transparency promotes collaboration and support from all stakeholders involved in the educational process.

In addition to its user-friendly design, the SPMS incorporates advanced analytical tools that provide educators with valuable insights into student performance trends. These tools enable teachers to generate detailed reports and analyze data to identify areas where students excel or require additional assistance. With this comprehensive view of student performance, educators can tailor their instruction and interventions to meet the unique needs of each student. This personalized approach not only enhances student engagement but also contributes to improved academic outcomes.

Finally, the SPMS prioritizes data security, ensuring that student information is stored securely and protected from unauthorized access. This focus on security is essential for maintaining student confidentiality and adhering to privacy regulations. Furthermore, the web-based nature of the SPMS allows for easy scalability, enabling the system to adapt to the growing needs of educational institutions. Whether a school is expanding its student population or incorporating new features, the SPMS can evolve to meet these demands. In summary, the proposed Student Performance Management System offers a robust solution that enhances the efficiency, accuracy, and effectiveness of managing student performance data, ultimately contributing to a more effective learning environment.

## Project planning

The project has 4 months from August to November. Considering the total available time for the project, I have prepared a plan and schedule which isgiven below.

|  |  |  |
| --- | --- | --- |
| Sl.No | Duration | Activity |
| 1 | August | Identification of need. |
| 2 | September | Feasibility study |
| 3 | September | Analysis |
| 4 | October | Design |
| 5 | November | Testing |
| 6 | November | Implementation |

## Project scheduling

Once we have estimates of the effort and time requirement for the different

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Activity | August | September | October | November |
| Identification of  need |  |  |  |  |
| Feasibility study |  |  |  |  |
| Analysis |  |  |  |  |
| Design |  |  |  |  |
| Testing |  |  |  |  |
| Implementation |  |  |  |  |

phases, a schedule for the project can be prepared. Conceptually simple and effective scheduling techniques like calendar-oriented charts are prepared. Progress can be represented easily by ticking off each milestone when completed. Alternatively, for each activity another bar can be drawn specifying

when the activity actually started and ended, i.e., when these two milestones were achieved. Once we have estimates of the effort and time requirement for the different phases, a schedule for the project can be prepared.

## Feasibility Study

A feasibility study is a crucial step in evaluating the practicality and viability of implementing the proposed Lottery Shop Management System. This study encompasses various aspects, including technical, operational, economic, and scheduling considerations.

#### Technical Feasibility:

System Requirements:\* Assess the technical requirements for developing and implementing the system, ensuring compatibility with existing hardware and software infrastructure.

Development Tools:\* Evaluate the availability and appropriateness of development tools and technologies required for building the system.

#### Operational Feasibility:

User Acceptance: Gauge the willingness and readiness of administrators and users to adapt to the new system through surveys, interviews, or pilotprograms.

Training Needs: Identify training requirements for administrators and users to ensure a smooth transition to the new system.

#### Economic Feasibility:

Cost-Benefit Analysis: Conduct a comprehensive cost-benefit analysis, considering development costs, potential savings from process automation, and projected revenue increases.

Return on Investment (ROI): Assess the expected ROI over time to determine whether the benefits justify the initial and ongoing costs of implementing the system.

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# SOFTWARE REQUIREMENT SPECIFICATION (SRS)

## Introduction

This document aims to provide a clear and detailed understanding of the system's requirements to stakeholders, including developers, administrators, and end-users. By defining the scope, objectives, and features of the system, the SRS serves as a roadmap for the development process, ensuring that all parties involved have a unified vision and understanding of the project. Through collaboration and adherence to the specifications outlined herein, the development team will work towards creating a robust and user-friendly platform that addresses the current limitations of the paper-based system, ultimately contributing to enhanced efficiency, security, and user satisfaction in the management of lottery operations.

#### Purpose

The primary purpose of the **Student Performance Management System** is to simplify the process of managing academic data for schools and colleges. Teachers and administrators often face the challenge of tracking numerous students’ performance, attendance, and grades manually, which can lead to inefficiency and errors. This system aims to alleviate those challenges by centralizing student data in a single platform, making it easier to record, access, and analyze information. By using an automated system, the accuracy and speed of managing academic records can be significantly improved, ultimately benefiting both educators and students.

Another key purpose is to enhance the visibility of student performance trends. By providing detailed insights into students’ academic progress through performance metrics and analytics, the system allows teachers to quickly identify students who may need extra attention or support. The system enables a more proactive approach to student performance monitoring, allowing educators to intervene early and provide necessary guidance before students fall behind. This function supports better decision-making for individualized student support and academic growth.

The system is also designed to streamline communication between students, parents, and educators. By generating reports on attendance, grades, and overall performance, it provides transparency for all stakeholders involved. Parents and guardians can easily access their child’s academic records, fostering better engagement in the learning process. This open communication loop ensures that students are held accountable, and parents can stay informed about their child’s educational progress, allowing for more effective support at home.

Furthermore, the system promotes efficiency and time management. By reducing the amount of time educators spend on administrative tasks, such as manual grade calculation and attendance tracking, they can allocate more time to core teaching activities. Automated tools within the system will handle routine data management tasks, freeing up teachers to focus on lesson planning, teaching, and mentoring students. This increase in productivity ultimately contributes to a better educational environment.

Lastly, the **Student Performance Management System** ensures data security and integrity. The system is designed to securely store sensitive academic information, reducing the risk of data loss or unauthorized access. It maintains accurate records over time, providing a reliable source of information for academic reporting, performance analysis, and regulatory compliance. In doing so, the system helps schools and colleges maintain organized, secure, and up-to-date academic data, ensuring that educational institutions can function smoothly without the inefficiencies caused by manual data management.

##### Scope

The student performance management sytem focus on streamlining the management of academic data such as student profiles, grades, and attendance records. It allows for easy input, updating, and organization of student information, enabling teachers to track academic performance more effectively. By centralizing attendance tracking, the system records daily attendance, generates detailed reports, and highlights patterns over time. Additionally, it simplifies grade management by recording scores for various assessments, including assignments, quizzes, exams, and projects, and facilitates the creation of report cards and performance metrics like GPA.

The system also offers comprehensive performance analysis through graphical and statistical tools, enabling educators to monitor student progress and make informed decisions. Teachers and administrators can quickly analyze individual or group performance, identify trends, and address potential issues in student academic achievement. Overall, this web-based application provides a centralized, user-friendly platform for managing student performance, thereby reducing manual effort and improving data accuracy and accessibility.

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JeffreyD.Ullman,andJenniferWidom**:**

(https://docs.flutter.dev/)

##### Overview

The document contains the detailed documentation and functions of ‘Student Performance Management System’ like functional requirements, constraints, dependencies etc**.** The SRS is organized as it discusses the product description first then the requirements of the products, and the dependencies that will face by the systems etc. The developer is responsible for:

* + - * Developing the system.
      * Installing the software.
      * Maintaining the system.

## Overall description

#### Product perspective

The **Student Performance Management System** is a comprehensive web-based application developed to centralize and streamline the management of student academic performance in educational institutions. It serves as an integrated solution that simplifies the process of tracking grades, attendance, and overall student progress, making it easier for teachers, administrators, and students to access and manage crucial academic data. By offering a user-friendly interface, the system allows teachers to efficiently input grades, track attendance, and analyze student performance, while providing administrators with powerful tools for generating comprehensive reports and managing large student populations. For students, the system fosters transparency by enabling them to monitor their own academic standing, and it offers real-time access for parents or guardians to stay updated on their child's progress. Designed to be compatible with other academic tools, the system can easily integrate with existing software and platforms through APIs or data import/export functionalities, ensuring a cohesive and connected experience. Accessible via standard web browsers on a variety of devices such as desktops, laptops, and tablets, the system is built for flexibility and scalability, capable of serving the needs of small schools or large universities alike. Whether deployed on-premise or in the cloud, the system ensures security, reliability, and ease of use, enhancing the overall educational experience for all stakeholders involved.

#### Product functions

The **Student Performance Management System** includes essential functions that streamline academic data management in educational institutions. It enables efficient student information management, daily attendance tracking, and grade input for various assessments while automatically calculating performance metrics like GPA. The system generates detailed performance reports for students and facilitates data analysis to identify trends. With secure role-based access, it allows parents to monitor their child's progress and sends notifications for important updates. Additionally, it automates report card generation and supports data export and import, ensuring seamless integration with other academic tools

##### User characteristics

The **Student Performance Management System** is characterized by its user-friendly interface, designed to accommodate users with varying levels of technical expertise, including teachers, administrators, and students. The intuitive design facilitates easy navigation, allowing users to quickly find and access the information they need without extensive training. This streamlined experience is essential in an educational setting where time is often limited, enabling educators to focus on their teaching responsibilities rather than spending time learning complicated software.

One of the key characteristics of the system is its web-based accessibility. Users can access the application from any device with an internet connection, including desktops, laptops, and tablets, providing flexibility and convenience. This characteristic ensures that both educators and students can engage with the platform anytime and anywhere, whether in the classroom, at home, or while on the go. By removing geographical barriers, the system fosters an environment where timely updates on academic performance, attendance, and grades are readily available to all users.

Security is a fundamental aspect of the system, incorporating robust data management features to protect sensitive academic information. The application utilizes data encryption and secure login protocols to safeguard against unauthorized access and potential data breaches. Additionally, the system implements role-based access control, allowing users to access only the information relevant to their roles—such as teachers viewing student grades or parents monitoring their child’s attendance—ensuring privacy and confidentiality throughout the platform.

Another important characteristic of the system is its automated reporting capabilities, which significantly reduce the administrative burden on educators. The application automates the generation of critical documents, such as report cards and attendance records, minimizing the potential for human error and streamlining administrative tasks. Real-time data updates ensure that any changes to student information, grades, or attendance are immediately reflected in the system, providing all users with the latest information. Coupled with built-in analytics tools, the system offers insights into student performance trends, enabling educators to make informed decisions about interventions and support for individual students. Furthermore, its integration capabilities with other educational software facilitate a cohesive academic management environment, enhancing the overall effectiveness of the educational experience.

##### Constraints

* + - * The system is user friendly.
      * User must be aware to enter correct data into local databases.

##### Assumptions and dependencies

The assumptions are that the coding should be error free. The system should be user friendly so that the users can easily access data which have more

storage capacity and provide fast access to database. Search facilities and providequicksearchresults.Savemoneyandtimeunliketheexistingsystem. The dependencies are that the specific hardware and software are required for the product to will run. On the basis of listing requirements and specification, the system will be developed and run. Updates are to be made correctly and data entered without any mistakes.

## Specific requirements

##### External interfaces

The system incorporates several external interfaces to enhance its functionality and connectivity within the broader educational landscape. A pivotal connection is established with a Database Management System (DBMS), facilitating efficient storage and retrieval of user profiles, course data, and system configurations.

This interaction ensures seamless user experiences and accurate representation of course information.

These external interfaces collectively contribute to the system's versatility, connectivity, and user-friendly interactions, aligning it with the evolving needs of the educational technology landscape.

##### Functional requirements

* + - * Provide the facility for the members to change their password.
      * Provide a simple and attractive interface.
      * Ensure security for the database.
      * The system should be able to handle high volumes of data.

##### Performance requirements

* + - * Web pages hosted on the local server should have a load time of less than 2 seconds.
      * Ensure compatibility with the latest versions of PHP, MySQL, and other relevant components.

##### Logical database requirements

* + - * The XAMPP environment should not exceed a memory usage of 512 MB under normal operations.
      * Apply normalization techniques to ensure the database is in at least the third normal form (3NF).
      * Design a comprehensive database schema that includes tables for users, courses, discussions, assignments, and other relevant entities.

##### Design constraints

The design of system is subject to certain constraints that shape its development and functionality. Firstly, technological constraints may arise from the compatibility requirements with existing infrastructure, influencing the selection of technologies and limiting potential integrations. Budgetary constraints also play a significant role, impacting the scale and features of the system within the allocated financial resources.

Moreover, adherence to data protection regulations imposes constraints ondata storage, processing, and transmission, emphasizing the need for robust security measures. User adoption constraints may emerge from the necessityfor comprehensive training programs and potential resistance to a shift from traditional education models to an online platform.

Additionally, time constraints can influence the development speed and the timely deployment of system updates. Addressing these constraints effectively requires strategic planning, resource allocation, and a careful balance between functionality, security, and user acceptance to ensure the successful implementation of the E-learning Management System.

##### Software system attributes

* Reliability: The ability of the software to perform its intended functions without failure under normal conditions.
* Performance: The responsiveness and efficiency of the software concerning speed, throughput, and resource utilization.
* Scalability: The system's ability to handle increased loads and user demands by efficiently scaling resources.
* Maintainability: The ease with which the software can be modified, updated , and extended over time.
* Usability: The user-friendliness and effectiveness of the software in facilitating user interactions.
* Security: The protect in of the software and its data against unauthorized access, attacks, and data breaches.
* Portability: The ability of the software to run on different platforms and environments without modification.
* Availability: The extent to which the software is operational and accessible when needed.

##### Organizing the specific requirements

In this system the overall functionality is organized by Dataflow diagrams and E-R diagrams. Based on these diagrams, data relationships and dependencies are found and a functional hierarchy is made for organizing the specific requirements.

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# SOFTWARE AND HARDWARE REQUIREMENT

## Software Requirements

To develop the application software, we use different type of software. The software for the development has been selected based on several factors such as: Support and stability, Cost effectiveness, Development speed, Ability to create robust application least time.

The minimal software’s used for storage are:

Operating System : Windows 10 or later, Ubuntu20.04 LT Sor later

Front-End Development :HTML, CSS,JAVASCRIPT Serverscript : PHP

Back-end :MySQL4.2, PHP

## Hardware Requirements

The hardware requirements for the Knowlegde sharing platform outline the necessary specifications and configurations that users' computer systems must meet to ensure optimal performance of the software. Below is an example of how these hardware requirements might be specified:

* + - Processor:Dual-coreprocessor,2.0GHzorequivalent
    - Memory(RAM):4GBorhigher
    - Storage:Minimum20GBofavailable disk space
    - Display:1280x800resolutionorhigher
    - Input Devices: Keyboard and mouse(or other pointing devices)

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# SYSTEMDESIGN

## Introduction

TheLotteryShopManagementSystemisa comprehensiveplatformdesigned to efficiently handle the operations of a lottery business. Administrators have the authority to add new lotteries, view andmanage user accounts, and oversee ticket purchases. Additionally, administrators can access a detailed record of users and the corresponding lottery tickets they've purchased. Users, upon logging into their accounts, can buy lottery tickets, check results, and modify their profiles. Even without logging in,visitors can view common lottery results on the home page. The system ensures a seamless experience for both administrators and users, offering a user-friendly interface and robust functionalities to streamline the management of lottery-related activities.

* 1. **InputDesign**

Enteremail

Enterpassword

Enteremail

LOGIN

ADDRESULT

ADDCATEGORY

ADDLOTTERY

## OutputDesign

Category

Category

Category

Category

VIEWCATEGORY

BUY

Lottery detailsand price.

SINGLELOTTERYVIEW

* 1. **Numberofmodulesandtheirdescription**

##### User

For registered users, the module facilitates a secure and straightforward registration process, allowing individuals to create accounts and personalize profiles. Once logged in, users can effortlessly purchase lottery tickets, check results, and edit their profiles as needed. The emphasis is on providing an intuitive interface, ensuring users of varying technical proficiencies cannavigate the system with ease.

Non-logged-in users are also accommodated through the module, allowingthem to access common lottery results on the homepage without the need for authentication.Thisinclusiveapproachenhancesaccessibility,providing quick information to individuals who may not have user accounts but are interested in lottery results.

##### Admin

This module encompasses functionalities that allow administrators to seamlesslymanagelotteries,results,anduseractivities,ensuringa streamlined and organized workflow.

Within the Admin Module, administrators have the capability to add, defining key parameters such as names, ticket prices, and draw dates. Result managementisfacilitatedthroughfunctionalitiesthatenableadministrators to input and update lottery outcomes. The module also provides tools for tracking user activities, ensuring administrators can monitor sales, user engagement,andoverallsystemperformancethroughanintuitivedashboard.

Security measures are a priority within the Admin Module, with role-based accesscontroldefiningdifferentlevelsofadministrativepermissions.This

ensures that sensitive functionalities are accessible only to authorized personnel,enhancingtheoverallintegrityandconfidentialityofthesystem.

The Admin Module is a central hub for decision-making, equipped with reporting and analytics tools to generate insights into user behavior, sales trends, and other key performance indicators. This data-driven approach empowers administrators to make informed decisions and adapt strategies based on the evolvingdynamics of the lottery management domain.

In summary, the Admin Module serves as the backbone of the Lottery Shop Management System, providing administrators with the tools they need to efficientlymanagelotteries,monitorresults,andensureasecureand optimized user experience.

## FunctionalDiagram

* + - **Admin**

Admin

Usernameandpassword

No

Checks

Loginfailed

Yes

Categoryadd

AddLottery

ViewLottery

Viewuser

Logout

AddResult

* + - **User**

User

Usernameandpassword

No

Checks

Loginfailed

Yes

ViewCategory

ViewLottery

BuyLottery

Viewresult

Logout

Profile edit

Password Varchar

social\_links Longtext

Biography Longtextrole\_id

date\_added Date

#### 5.6Databasedesign

Tablename:user

|  |  |  |  |
| --- | --- | --- | --- |
| **FIELD** | **DATATYPES** | **CONSTRAINS** | **DESCRIPTION** |
| usid | Int | Primarykey,AI | Userid |
| Name | Varchar | Notnull | UserName |
| Email | Varchar | Notnull | UserEmail |
| Password | Varchar | Notnull | UserPassword |
| Address | Varchar | Notnull | Address |
| PhoneNum | Int | Notnull | Phonenum |

Tablename:Category

|  |  |  |  |
| --- | --- | --- | --- |
| **FIELD** | **DATATYPES** | **CONSTRAINS** | **DESCRIPTION** |
| CategoryName | varchar | Notnull | Nameofthecategory |
| CategoryId | Int | Primarykey | Idofthecategory |
| Image | Varchar | Notnull | ImageofTicket |

Tablename:Order

last\_message\_times

Longtext

tamp

|  |  |  |  |
| --- | --- | --- | --- |
| **FIELD** | **DATATYPES** | **CONSTRAINS** | **DESCRIPTION** |
| Orderid | Int | Primarykey | Orderid |
| Ticketid | int | Notnull | Ticketid |
| Usid | Int | Notnull | Idofuser |
| Purchasedate | date | Notnull | Dateofpurchase |

Tablename:Result

|  |  |  |  |
| --- | --- | --- | --- |
| **FIELD** | **DATATYPES** | **CONSTRAINS** | **DESCRIPTION** |
| Resultid | Int | Primarykey | Resultid |
| Ticketid | Int | Notnull | Ticketid |
| Position | Int | Notnull | Position |

Tablename:Ticket

|  |  |  |  |
| --- | --- | --- | --- |
| **FIELD** | **DATATYPES** | **CONSTRAINS** | **DESCRIPTION** |
| Ticketname | Int | Primarykey | Ticketname |
| Ticketid | Int | Notnull | Ticketid |
| Ticketdetails | Int | Notnull | Ticketdetails |
| Ticketprice | int | Notnull | Priceofticket |
| Date | Date | Notnull | Date |
| Status | Int | Notnull | Statusoflottery |
| Categoryname | Varchar | Notnull | Nameofcategoty |

login\_role\_id

login\_email

user\_password

#user\_id

Login

user\_email

User

Has

user\_name

#categoryid

#id

Name

Has

Category

Addedby Admin

Name

Email

#id

Number

Lottery

Announceto Result

#id

Result

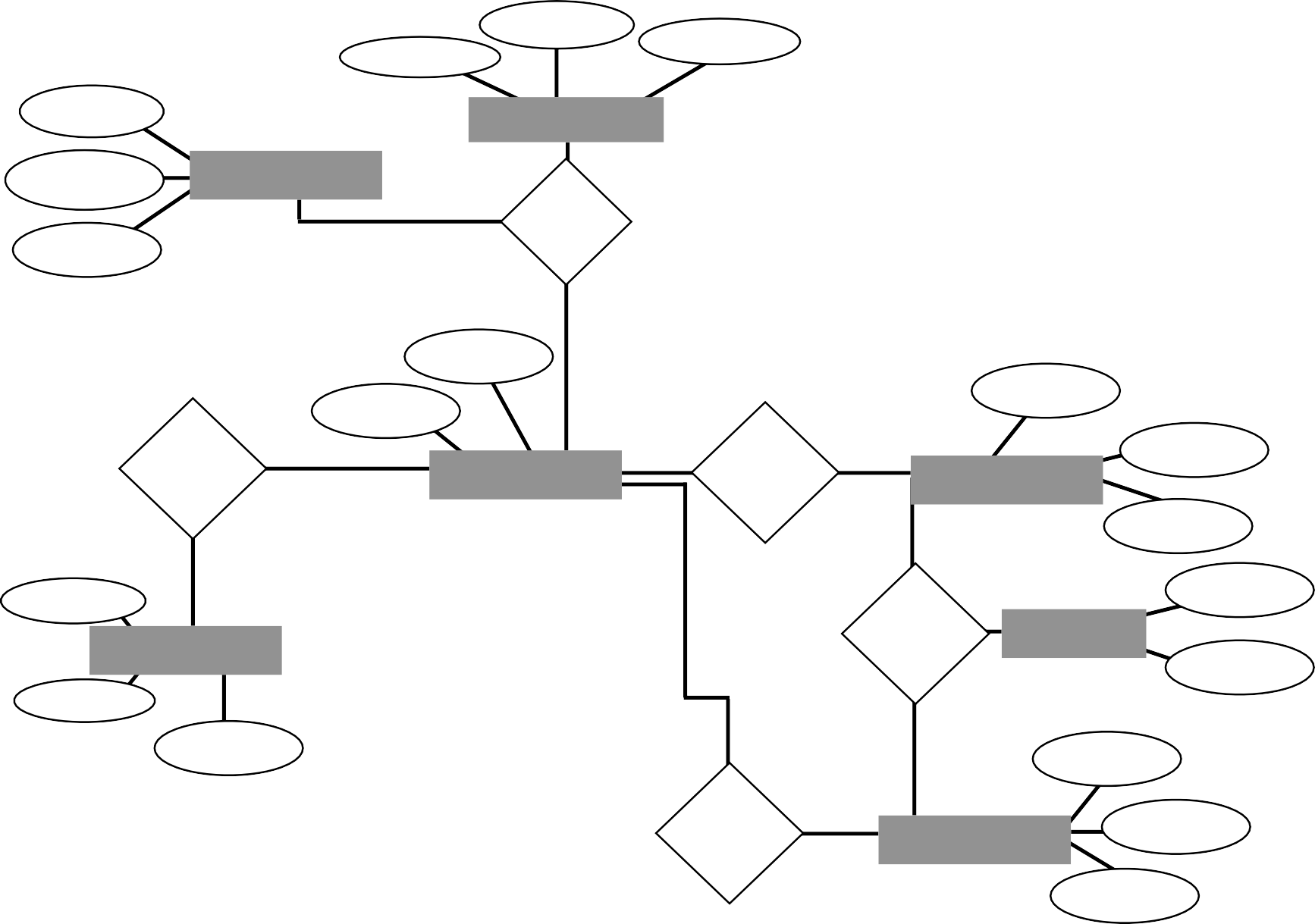
Image

#user\_id

Broughtby

User

Name



**5.7.**

**ERdiagram**

33

Email

### Dataflowdiagram

Manageresult

Managecategory

Lottery list

Userlist

Viewresult

Buying lottery

Viewlottery

Manageprofile

**Level0**

E-lottery managementsystem

User

Admin

**Level1**

* + - Admin

Email,Password

Email,

Userid,

Password

User

authenticate

Manageuser

profile

category\_id

Manage

Category

Categorydetails

lottery\_id

Manage

Lottery

Lotterydetails

result\_id

Manage

result

Resultdetails

user\_id

Manage

user

User details

Admin

Login

category

Lottery

Result

User

* + - user

Email,Password

Email,

Userid,

Password

User

authenticate

Manage

userprofile

lottery\_id

View

lottery

Lotterydetails

result\_id

View

result

Resultdetails

User

Login

Lottery

Result

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# SYSTEMDEVELOPMENT

#### ProcessDescription

The process within the system involves a seamless and user-centric flow, beginning with user registration and authentication. Once authenticated, users enter their personalized profiles, where they can manage information, preferences,buy lottery, and view result.

Simultaneously, administrators utilize the Admin Module to manage user accounts, lottery, and result. Through the Admin Module, they can moderate content, analyze system analytics, and ensure security measures are implemented. This administrative oversight contributes to the seamless operation and optimization of the system.

#### Pseudocode

##### home.php

<!DOCTYPEhtml>

<htmllang="en">

<head>

<metacharset="UTF-8">

<metaname="viewport"content="width=device-width,initial-scale=1.0">

<link href="https://fonts.googleapis.com/css?family=Roboto" rel="stylesheet">

<linkrel="stylesheet"href="./css/homepage.css">

<link rel="stylesheet" href="./css/font-awesome-4.7.0/css/font- awesome.css">

<title>Homepage</title>

</head>

<body>

<divclass="container">

<divclass="title">

<spanclass="heading">E-Lottery</span>

</div>

<divclass="nav">

<ul>

<li>

<ahref="index.php">Home</a>

</li>

<li>

<ahref="login.php">Login</a>

</li>

<li>

<ahref="signup.php">Register</a>

</li>

<li>

<ahref="general\_result.php">Results</a>

</li>

</li>

</li>

</ul>

</div>

<divclass="slider">

<imgsrc="../elottery/images/x1080.jpg" class="slider-image" alt="img">

</div>

</div>

</div>

</body>

</html>

##### login.php

<?php

session\_start();

?>

<!DOCTYPEhtml>

<htmllang="en">

<head>

<metacharset="UTF-8">

<metaname="viewport"content="width=device-width,initial-scale=1.0">

<title>IndexPage</title>

<linkrel="stylesheet"href="css/login.css">

<linkrel="stylesheet"href="./font-awesome-4.7.0/css/font-awesome.css">

<link href="https://fonts.googleapis.com/css?family=Roboto" rel="stylesheet">

<linkrel="stylesheet"href="./css/homepage.css">

<link rel="stylesheet" href="./css/font-awesome-4.7.0/css/font- awesome.css">

</head>

<body>

<div class="container">

<divclass="title">

<spanclass="heading">E-Lottery</span>

</div>

<divclass="nav">

<ul>

<li>

<ahref="index.php">Home</a>

</li>

<li>

<ahref="login.php">Login</a>

</li>

<li>

<ahref="signup.php">Register</a>

</li>

<li>

<ahref="general\_result.php">Results</a>

</li>

</li>

</li>

</ul>

</div>

<divclass="main">

<divclass="login">

<formaction=""method="post"name="login">

<fieldset>

<legendclass="heading">Login</legend>

<input type="text" name="input\_email" placeholder="Email"

id="">

<input type="password" name="input\_password"

placeholder="Password"id="">

<inputtype="submit"name="Login"></input>

</fieldset>

</form>

</div>

</div>

</body>

</html>

<?php

functionredirect($url){

echo "<script>alert(1)</script>"; header("Location: {$url}");

die();

}

$con=mysqli\_connect("localhost","root","","elottery");if(isset($\_POST['Login'])){

$email=$\_POST['input\_email'];

$password=$\_POST['input\_password'];

//echo"$email,$password";

$sql = "SELECT \* FROM users where email='$email' and password='$password' ";

//echo"$sql";

$result=mysqli\_query($con,$sql);

//var\_dump($result);

if(mysqli\_num\_rows($result)>0)

{

while($row=mysqli\_fetch\_array($result))

{

$\_SESSION['uid'] = $row['usid']; echo $row['email'];

if($row['email']==='admin@gmail.com'){

$\_SESSION["adminauth"] = true; redirect('./admin.php');

}else{

$\_SESSION["userauth"]=true;

redirect('./normal\_user.php');

}

}

}

}

?>

##### sign\_up.php

<!DOCTYPEhtml>

<htmllang="en">

<head>

<metacharset="UTF-8">

<meta name="viewport" content="width=device-width, initial- scale=1.0">

<title>IndexPage</title>

<linkrel="stylesheet"href="css/login.css">

<link rel="stylesheet" href="./font-awesome-4.7.0/css/font- awesome.css">

<link href="https://fonts.googleapis.com/css?family=Roboto" rel="stylesheet">

<linkrel="stylesheet"href="./css/homepage.css">

<link rel="stylesheet" href="./css/font-awesome-4.7.0/css/font- awesome.css">

</head>

<body>

<divclass="container">

<divclass="title">

<spanclass="heading">E-Lottery</span>

</div>

<divclass="nav">

<ul>

<li>

<ahref="index.php">Home</a>

</li>

<li>

<ahref="login.php">Login</a>

</li>

<li>

<ahref="signup.php">Register</a>

</li>

<li>

<ahref="general\_result.php">Results</a>

</li>

</li>

</li>

</ul>

</div>

<divclass="main">

<divclass="login">

<formaction=""method="post"name="login">

<fieldset>

<legendclass="heading">Register</legend>

<inputtype="text"name="name"placeholder="Name"

id="">

id="">

id="">

<inputtype="text"name="email"placeholder="Email"

<inputtype="text"name="address"placeholder="Address"

<inputtype="text"name="phonenum"placeholder="Phone

number"id="">

<input type="password" name="password" placeholder="Password" id="">

<inputtype="submit"value="Register"name="register">

</input>

</fieldset>

</form>

</div>

</div>

</body>

</html>

<?php

$con=mysqli\_connect("localhost","root","","elottery");if(isset($\_POST['register'])

){

$name=$\_POST['name'];

$email=$\_POST['email'];

$address=$\_POST['address'];

$phonenum=$\_POST['phonenum'];

$password=$\_POST['password'];

//echo"$email,$password";

$sql = "INSERT INTO users(name, email, address, phonenum,password) VALUES ('$name','$email','$address','$phonenum','$password') ";

//echo"$sql";

$result=mysqli\_query($con,$sql);

if($result)

{

echo"<script>alert('Registerationdone')</script>";

//header("location:signup.php");

}

else

{

echo"<script>alert('Registerationfailed')</script>";

}

}

?>

##### users.php

<!DOCTYPEhtml>

<htmllang="en">

<head>

<metacharset="UTF-8">

<meta name="viewport" content="width=device-width, initial- scale=1.0">

<linkrel="stylesheet"href="./css/home.css">

<link href="https://fonts.googleapis.com/css?family=Roboto" rel="stylesheet">

<link rel="stylesheet" href="./css/font-awesome-4.7.0/css/font- awesome.css">

<linkrel="stylesheet"href="normalize.css">

<linkrel="stylesheet"type='text/css'href="css/manage.css">

<linkrel="stylesheet"type='text/css'href="css/card.css">

<title>Dashboard</title>

</head>

<body>

<divclass="title">

<spanclass="heading">User</span>

<spanclass="heading">Dashboard</span>

<a href="logout.php" style="color: white"><span class="fa fa-sign- out fa-2x">Logout</span></a>

</div>

<divclass="nav">

<ul>

<!--<liclass="dropdown"onclick="toggleDisplay('1')">

<ahref=""class="dropbtn">BuyLottery&nbsp

<spanclass="fafa-angle-down"></span>

</a>

<divclass="dropdown-content"id="1">

<ahref="add\_lottery.php">Buylottery</a>

</div>

</li>-->

<liclass="dropdown"onclick="toggleDisplay('2')">

<ahref="profile.php"class="dropbtn">Profile&nbsp

<spanclass="fafa-angle-down"></span>

</a>

<divclass="dropdown-content"id="2">

<ahref="profile.php">Profile</a>

</div>

</li>

<liclass="dropdown"onclick="toggleDisplay('3')">

<ahref="#"class="dropbtn">Buy&nbsp

<spanclass="fafa-angle-down"></span>

</a>

<divclass="dropdown-content"id="3">

<ahref="normal\_user.php">BuyTickets</a>

</div>

</li>

<liclass="dropdown"onclick="toggleDisplay('3')">

<ahref="#"class="dropbtn">Results&nbsp

<spanclass="fafa-angle-down"></span>

</a>

<divclass="dropdown-content"id="3">

<ahref="user\_search\_result.php">SearchResults</a>

</div>

</li>

<liclass="dropdown"onclick="toggleDisplay('2')">

<ahref="#"class="dropbtn">Orders&nbsp

<spanclass="fafa-angle-down"></span>

</a>

<divclass="dropdown-content"id="2">

<ahref="view\_order\_user.php">ViewOrders</a>

</div>

</li>

</ul>

</div>

<divclass="main">

<?php

// session\_start(); include('init.php');

include("./auth/userauth.php");

$db=mysqli\_select\_db($conn,'elottery');

$sql="SELECT\*FROM`category`";

$data=mysqli\_query($conn,$sql);

//$row=mysqli\_fetch\_array($data);

// $idd = $row['ticketname']; if(mysqli\_num\_rows($data)>0)

{

echo"<table>"; echo "<tr>

<th></th>

<th>CategoryName</th>

<th>DETAILS</th>";

while($row=mysqli\_fetch\_array($data)){

$idd=$row['categoryname'];

$image = $row['image']; echo "<tr>";

echo"<td><imgstyle='width:200px;height:100px;' src='./images/$image'</td>";

echo "<td>" .$row['categoryname']."</td>"; echo "

<formmethod='POST'action='lotterydetails.php'>

<td><buttonid='hero\_bt'type='submit'name='details' value='{$idd}'>VIEW</button>

</form></td>

</tr>";

//echo"</tr>";

}

</div>

</div>

</div>

</body>

</html>

}

echo"</table>";

?>

##### addcategory.php

<!DOCTYPEhtml>

<htmllang="en">

<head>

<metacharset="UTF-8">

<meta name="viewport" content="width=device-width, initial- scale=1.0">

<metahttp-equiv="X-UA-Compatible"content="ie=edge">

<linkrel="stylesheet"href="./css/home.css">

<link href="https://fonts.googleapis.com/css?family=Roboto" rel="stylesheet">

<link rel="stylesheet" href="./css/font-awesome-4.7.0/css/font- awesome.css">

<linkrel="stylesheet"href="./css/form.css">

<title>Dashboard</title>

</head>

<body>

<divclass="title">

<ahref="admin.php"><spanclass="heading"> </span></a>

<a href="admin.php"><span class="heading">Dashboard</span></a>

<a href="logout.php" style="color: white"><span class="fa fa-sign- out fa-2x">Logout</span></a>

</div>

<divclass="nav">

<ul>

<liclass="dropdown"onclick="toggleDisplay('1')">

<ahref=""class="dropbtn">Lottery&nbsp

<spanclass="fafa-angle-down"></span>

</a>

<divclass="dropdown-content"id="1">

<ahref="add\_lottery.php">AddLottery</a>

<ahref="manage\_lottery.php">ManageLottery</a>

<ahref="addcategory.php">Addcategory</a>

</div>

</li>

<liclass="dropdown"onclick="toggleDisplay('2')">

<ahref="#"class="dropbtn">Users&nbsp

<spanclass="fafa-angle-down"></span>

</a>

<divclass="dropdown-content"id="2">

<ahref="search\_users.php">SearchUsers</a>

<ahref="manage\_users.php">ManageUsers</a>

</div>

</li>

<liclass="dropdown"onclick="toggleDisplay('3')">

<ahref="#"class="dropbtn">Results&nbsp

<spanclass="fafa-angle-down"></span>

</a>

<divclass="dropdown-content"id="3">

<ahref="add\_results.php">AddResults</a>

<ahref="manage\_results.php">ManageResults</a>

</div>

</li>

<liclass="dropdown"onclick="toggleDisplay('2')">

<ahref="#"class="dropbtn">Orders&nbsp

<spanclass="fafa-angle-down"></span>

</a>

<divclass="dropdown-content"id="2">

<ahref="view\_order.php">ViewOrders</a>

<ahref="view\_sales.php">Viewsales</a>

</div>

</li>

</ul>

</div>

<divclass="main">

<formaction=""method="post">

<fieldset>

<legend>AddCategory</legend>

<input type="text" name="categoryname" placeholder="Category Name">

<inputtype="file"name="image"placeholder="InertImage">

<inputtype="submit"value="Add"name="add">

</fieldset>

</form>

</div>

<?php

include('init.php'); include("./auth/adminauth.php");if (isset($\_POST['add'])) {

$name=$\_POST["categoryname"];

$image=$\_POST["image"];

$sql="INSERTINTO`category`(categoryname,image) VALUES ('$name','$image')";

$data=mysqli\_query($conn,$sql); if($data){

echo"<script>alert('Insertedsuccessfully')</script>";

}

else{

echo"<script>alert('Insertionunsuccessfully')</script>";

}

}

?>

##### category\_add.php

<?php

include("./auth/adminauth.php");

?>

<!DOCTYPEhtml>

<htmllang="en">

<head>

<metacharset="UTF-8">

<meta name="viewport" content="width=device-width, initial- scale=1.0">

<metahttp-equiv="X-UA-Compatible"content="ie=edge">

<linkrel="stylesheet"href="./css/home.css">

<linkrel="stylesheet"href="./css/form.css">

<link href="https://fonts.googleapis.com/css?family=Roboto" rel="stylesheet">

<linkrel="stylesheet"href="./css/font-awesome- 4.7.0/css/font-awesome.css">

<title>Addlottery</title>

</head>

<body>

<divclass="title">

<ahref="admin.php"><spanclass="heading">

</span></a>

<a href="admin.php"><span class="heading">Dashboard</span></a>

<ahref="logout.php"style="color:white"><spanclass="fa fa-sign-out fa-2x">Logout</span></a>

</div>

<divclass="nav">

<ul>

<liclass="dropdown"onclick="toggleDisplay('1')">

<ahref=""class="dropbtn">Lottery&nbsp

<spanclass="fafa-angle-down"></span>

</a>

<divclass="dropdown-content"id="1">

<ahref="add\_lottery.php">AddLottery</a>

<ahref="manage\_lottery.php">ManageLottery</a>

<ahref="addcategory.php">Addcategory</a>

</div>

</li>

<liclass="dropdown"onclick="toggleDisplay('2')">

<ahref="#"class="dropbtn">Users&nbsp

<spanclass="fafa-angle-down"></span>

</a>

<divclass="dropdown-content"id="2">

<ahref="search\_users.php">SearchUsers</a>

<ahref="manage\_users.php">ManageUsers</a>

</div>

</li>

<liclass="dropdown"onclick="toggleDisplay('3')">

<ahref="#"class="dropbtn">Results&nbsp

<spanclass="fafa-angle-down"></span>

</a>

<divclass="dropdown-content"id="3">

<ahref="add\_results.php">AddResults</a>

<ahref="manage\_results.php">ManageResults</a>

</div>

</li>

<liclass="dropdown"onclick="toggleDisplay('2')">

<ahref="#"class="dropbtn">Orders&nbsp

<spanclass="fafa-angle-down"></span>

</a>

<divclass="dropdown-content"id="2">

<ahref="view\_order.php">ViewOrders</a>

<ahref="view\_sales.php">Viewsales</a>

</div>

</li>

</ul>

</div>

<divclass="main">

<formaction=""method="post">

<fieldset>

<legend>AddLottery</legend>

<inputtype="text"name="ticketname" placeholder="Lottery Name">

<input type="text" name="ticketdetails" placeholder="Lottery Details">

<input type="text" name="ticketprice" placeholder="Lottery Price">

<inputtype="date"name="date"placeholder="Date">

<select class="formcontrol" name="categoryname" id="categoryname" placeholder="Category Name" >

<?php

include('init.php');

$sql="select\*fromcategory";

$data=mysqli\_query($conn,$sql); while($row=mysqli\_fetch\_array($data)){

?>

<optionstyle="colorblack;"

value="<?phpecho$row['categoryname'];?>">

<?phpecho$row['categoryname'];?>

</option>

<?php}?>

<inputtype="submit"value="Submit"name="add">

</fieldset>

</form>

</div>

<divclass="footer">

</div>

</body>

</html>

<?php

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include('init.php');

if(isset($\_POST['add'])){

$name=$\_POST["ticketname"];

$details=$\_POST["ticketdetails"];

$price=$\_POST["ticketprice"];

$date=$\_POST["date"];

$category=$\_POST["categoryname"];

$sql = "INSERT INTO ticket(ticketname, ticketdetails, ticketprice, date,categoryname) VALUES ('$name','$details','$price','$date','$category')";

$sqll ="INSERTINTOcategory(categoryname) VALUES ('$category')";

$result=mysqli\_query($conn,$sql);

$resultt=mysqli\_query($conn,$sqll);

if($result){

echo'<scriptlanguage="javascript">'; echo 'alert("Successful)';

echo'</script>';

}

}

?>

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# SYSTEMIMPLEMENTATION

#### Testing

Testing focuses on the logical internals of the software, ensuring that all the statementshavebeentestedonthefunctionalexternal,thatis,conducting tests using various test data to detect errors and ensure that defined input will produce actual results that agreed with required results. It is the major quality control measure used during software development. The software testing methodology is applied in four distinct phases:

* UnitTesting
* IntegrationTesting
* ValidationTesting
* OutputTesting

##### UnitTesting

Different modules are tested against the specifications produced during the design for the modules. Unit testing is essentially for verification of the code produced during coding phase. Its main goal is to test the internal logic of the modules, typically done by the programmer of the module. Main focus in this testing is testing the code.

##### IntegrationTesting

Integration testing is the phase in software testing in which individual software testing in which individual software modules are combined and tested as a group. It occurs after unit testing and before validation testing. Integration testing takes as its input modules that have been unit tested, groups them in larger aggregates, applies tests defined in an integration plan to those aggregates,anddeliversas itsoutput.The purposeofintegrationtestingis to verify functional, performance, and reliability requirements placed on major design items.

##### Outputtesting

No system could be useful if it does not produce the required output in the specificformat.Outputtestingisperformedtoensurethecorrectnessofthe

output and its format. The output generated or displayed by the system istestedaskingtheusersabouttheformatrequiredbythem.

##### ValidationTesting

In software project management, software testing,andsoftware engineering,validationis the process ofchecking thata softwaresystemmeetsspecifications andthat it fulfillsits intended purpose. The errors which are uncovered during the integration testing are corrected during this phase.

#### SystemImplementation

The implementation phase of the software development is concerned with translating design specification in to source code. The user tests the developed system and changes are made according to their needs. Our system has been successfully implemented. Before implementation several tests have been conducted to ensure that no errors are encountered during the operation. The implementation phase ends with an evaluation of the system after placing into the operation for a period of time. The implementation stage is a systemsproject in its own right.

The process of putting the developed system in actual use is called system implementation. This includes all those activities that take place to convert from old system to new system. The system can be implemented only after testing is done and is found to be working to specifications.

Theimplementation stage involvesfollowingtasks:

* Carefulplanning.
* Investigationofsystemandconstraints.
* Designofmethodtoachievechangeover.
* Evaluationofthechangeovermethod.
* Installationofsoftwareutilities.
* Trainingandinvolvementofuserpersonnel.

## Security

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Data isthe most important element and themainissue related to it is the security of those valuable data. One of the major areas in development process of a system is providing security to all its data inan efficient way. In my work, data it is tightly protected byauthentication session password system. Only the administrator can access the entire system. The database server equipped with efficient password security system. So, the entire system is provided with tight security. As the data in our website use a method which encrypts and stores data locally it is less prone to getting hacked and the website itselfworks offline without any connection with the internet its also less prone to cyber attacks.

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# CONCLUSION

In conclusion, the Lottery Shop Management System stands as a testament tothe seamless fusion of technology and efficiency in the lottery industry. This comprehensive platform has been meticulously crafted to cater to the diverse needs of both administrators and users, offering a user-friendly interface and robustfunctionalitiesthatredefinethemanagementoflottery-related activities.

For administrators, the system provides unparalleled control, allowing them to effortlessly add and manage lotteries, oversee user accounts, and maintain a transparent record of ticket transactions. The introduction of distinct user roles adds a multi-facetedapproach to education,empowering instructors to shape the educational landscape by crafting courses, interacting with students, and contributing to a vibrant knowledge-sharing ecosystem.

Users, on the other hand, are treated to a streamlined and straightforward process, from purchasing lottery tickets to checking results. The system notonly facilitates these essential activities but also enhances the user experience through profile customization, ensuring a personalized touch for each participant in the lottery adventure. Even non-registered visitors benefit from the system's accessibility, as they can stay informed about common lottery results directly from the homepage.

The Lottery Shop Management System is more than just a centralized hub for lottery operations; it is a catalyst for positive change in the industry. By promoting transparency, accessibility, and ease of use, it fosters anenvironmentwhere allstakeholders canengage withconfidence.Theplatform's ability to adapt to the dynamic landscape of lottery management reflects its commitment to staying at the forefront of technological innovation.

As we reflect on the journey of developing this system, it becomes evident thatit is not merely a tool but a transformative force in the lottery industry. It is a culminationofdedication,innovation,andadeepunderstandingoftheneeds of administrators, users, and even casual visitors. In embracing the LotteryShop Management System, we embrace a future where lottery operations are not just efficient but also enriching.

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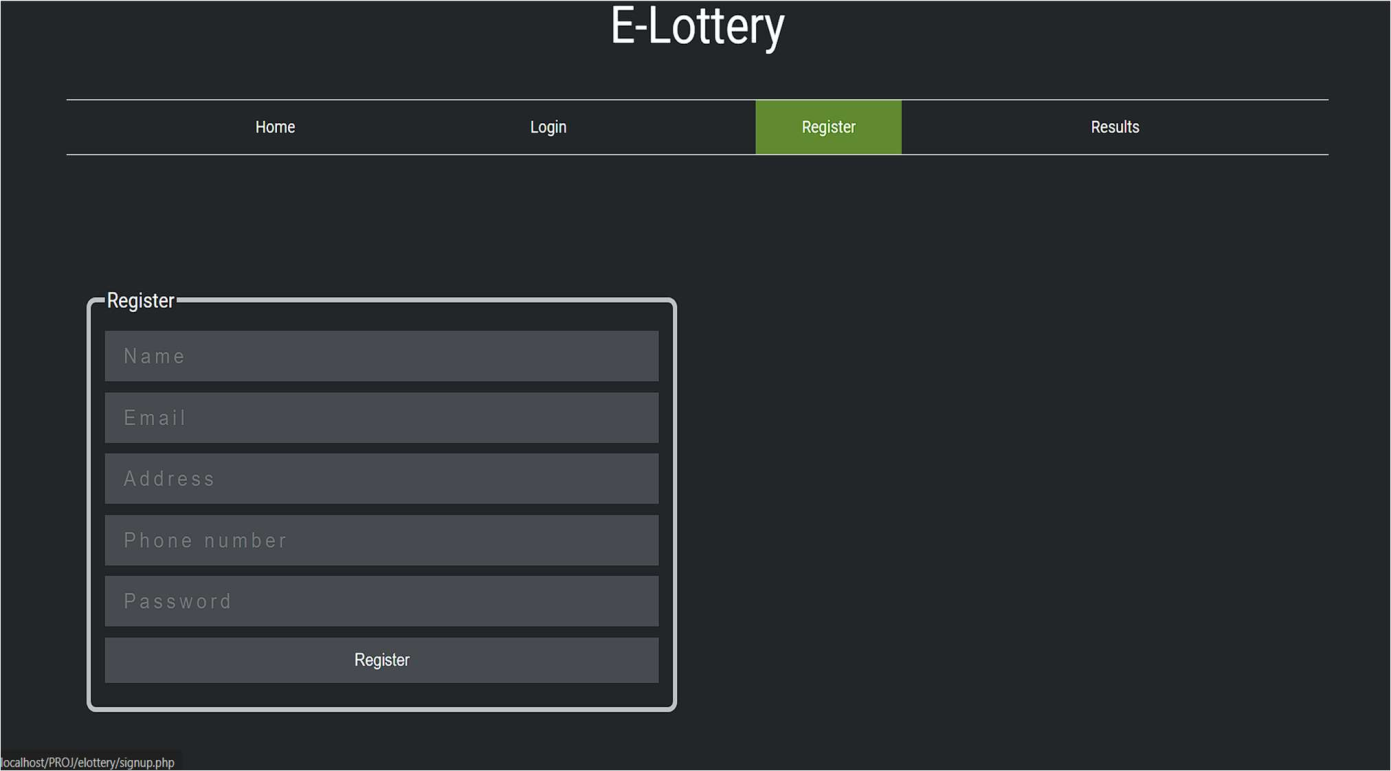
# APPENDIX

#### SampleInput

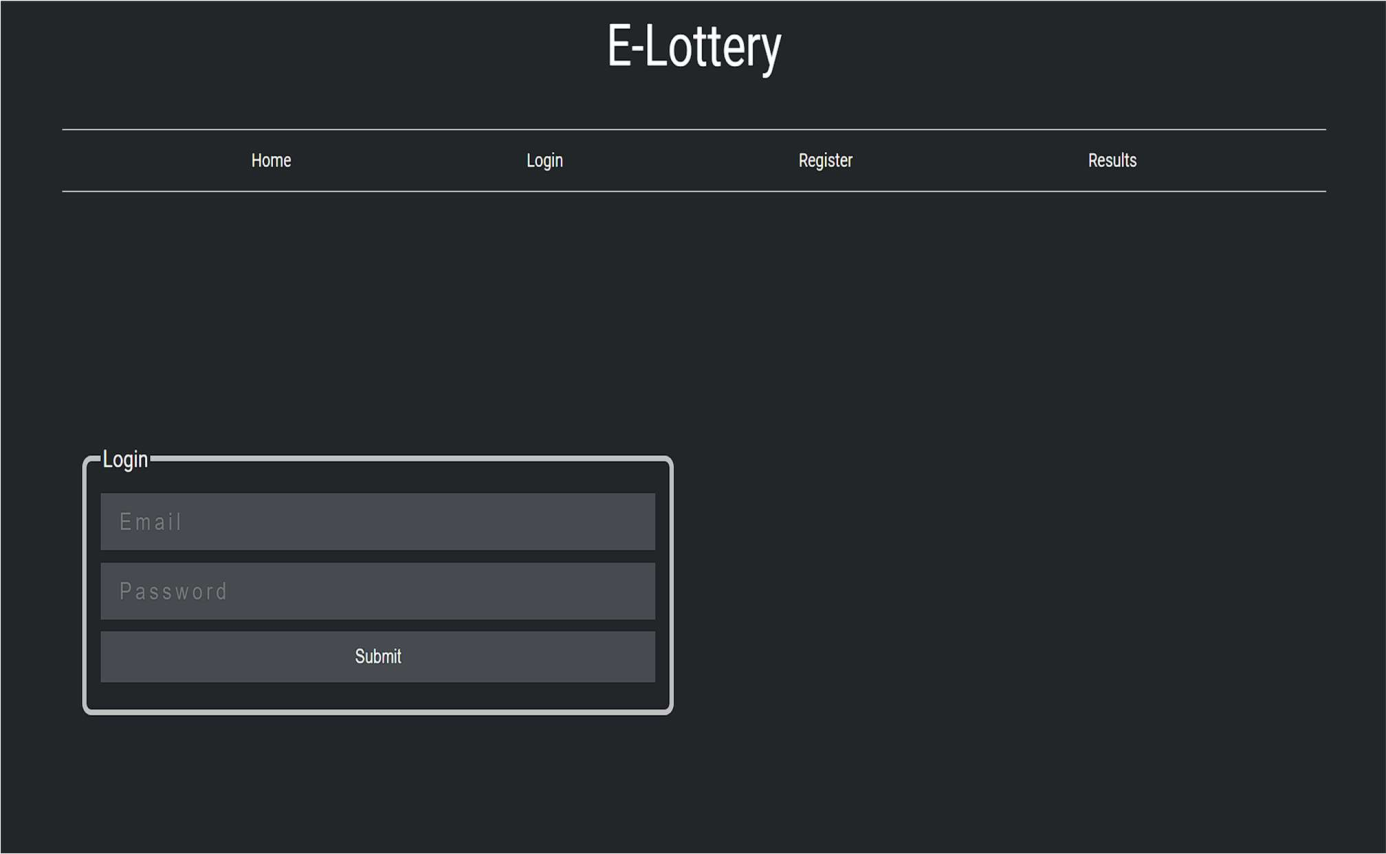
* Home f



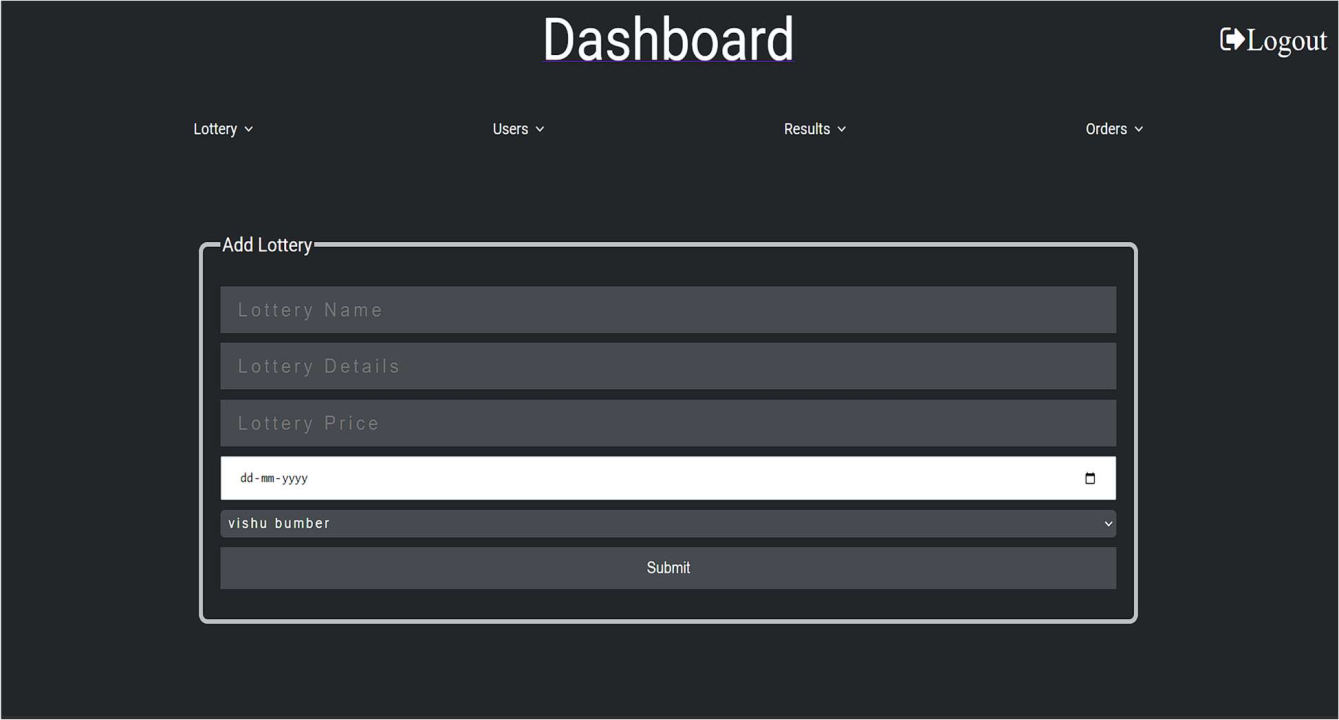
* Registrationform



Login

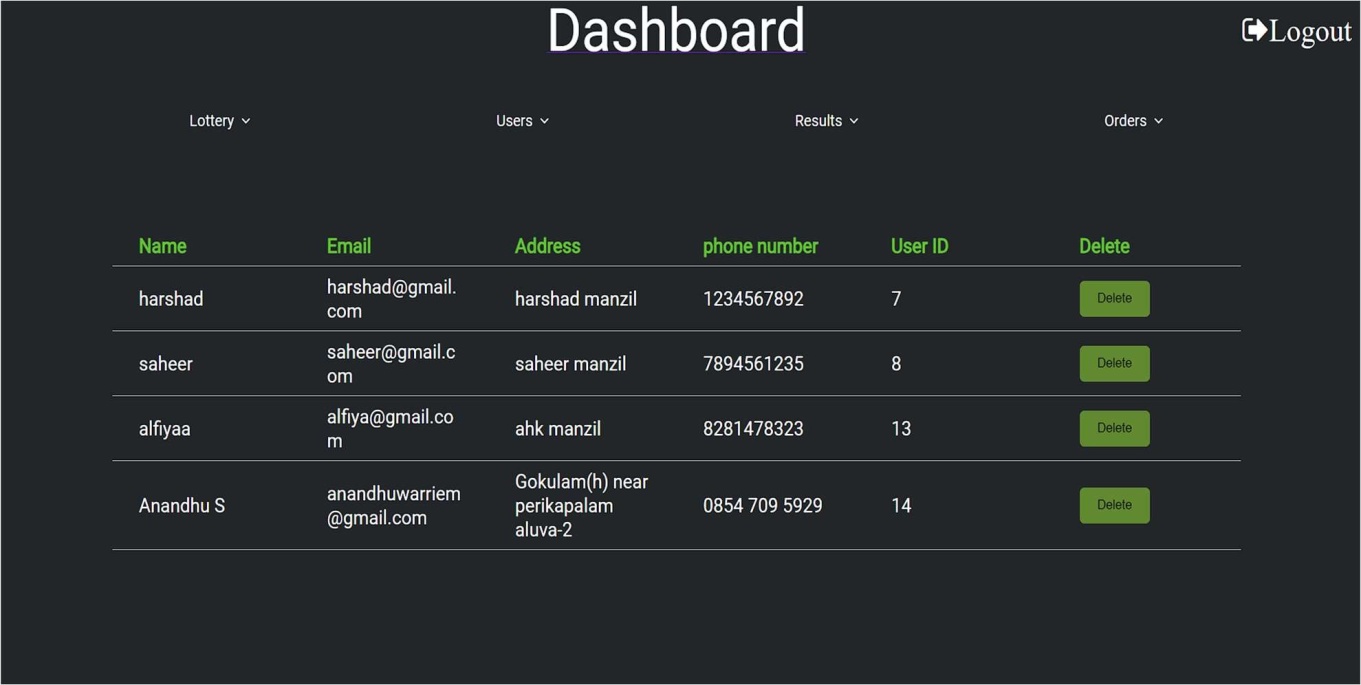


Addlotteryform

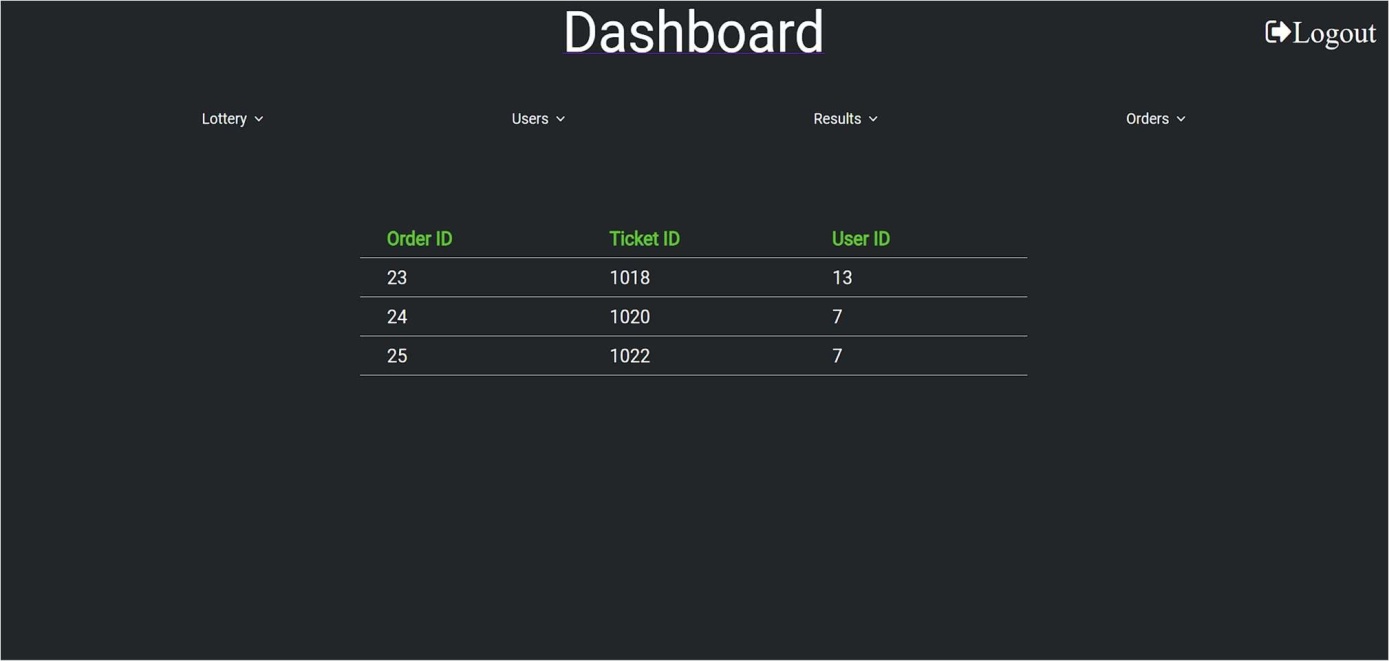


## SampleOutput

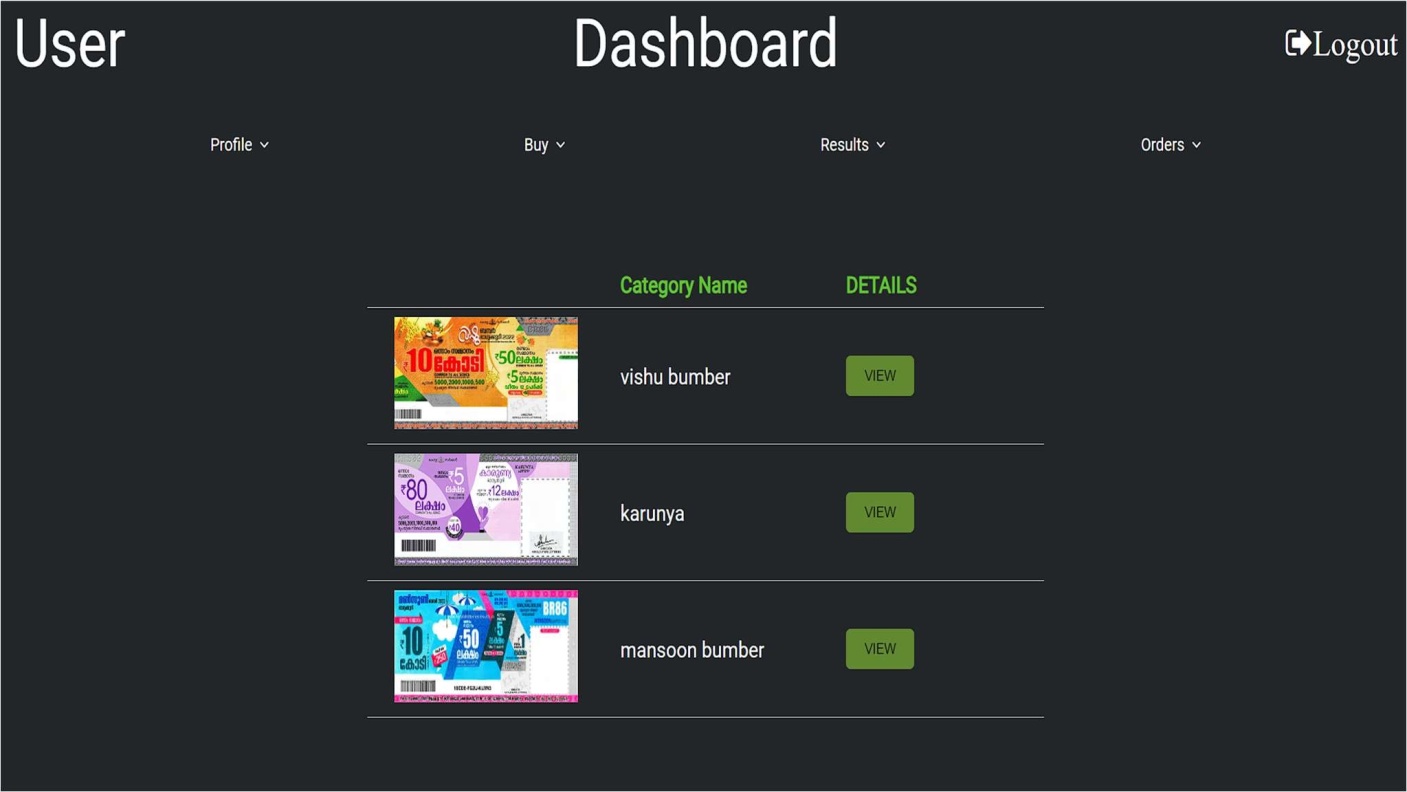
* Registeredusers



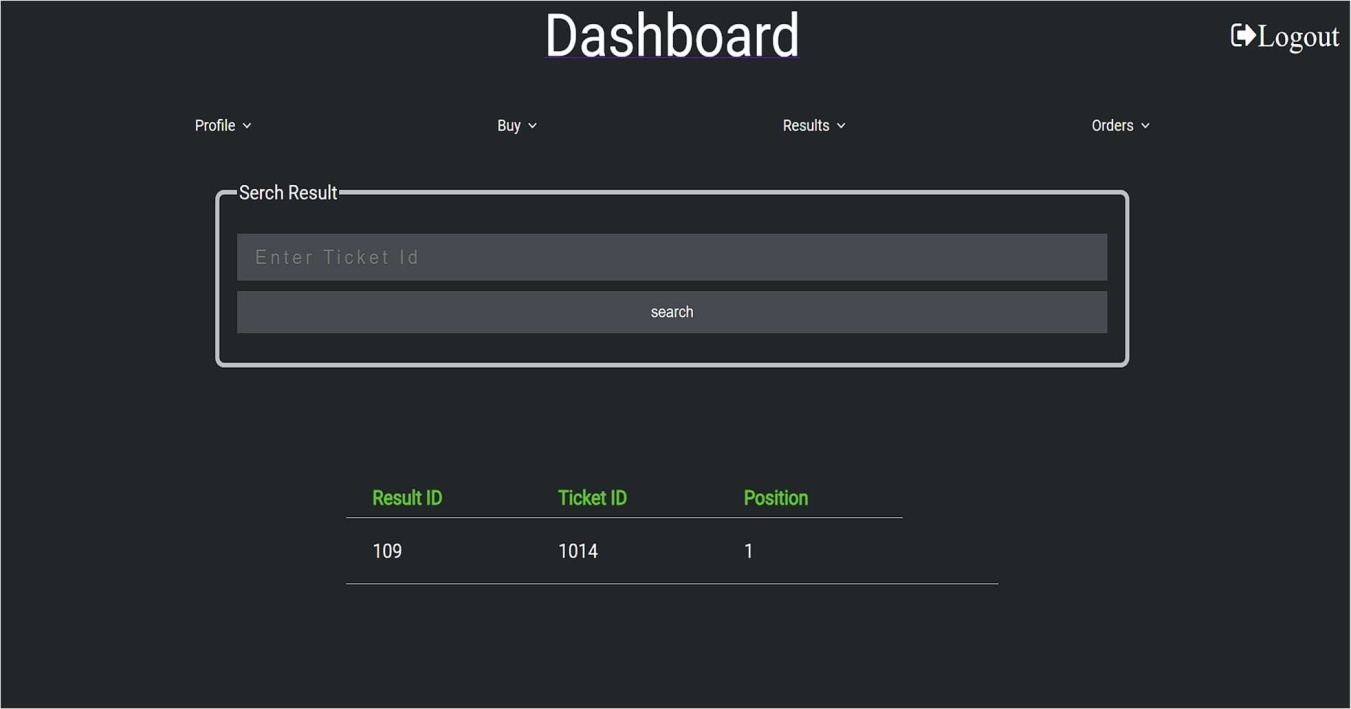
Resultview



* Categoryview



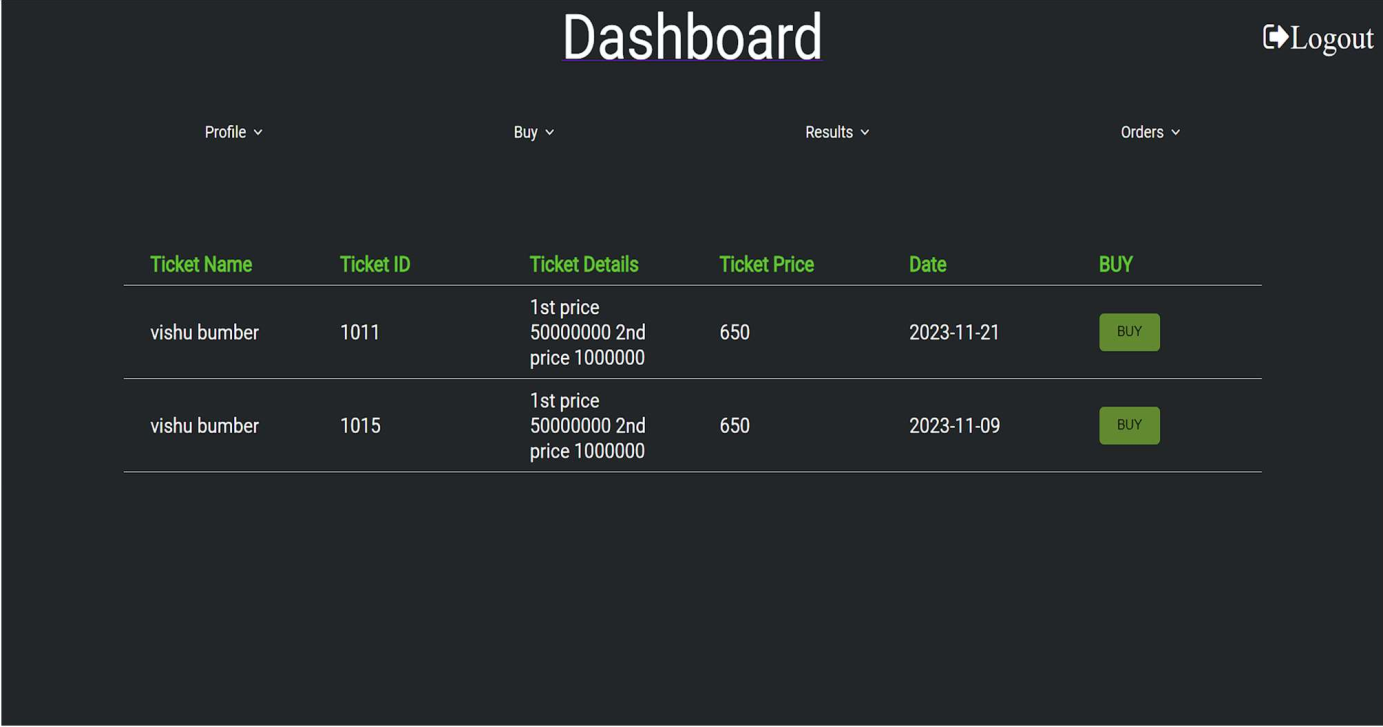
Resultview



##### Generalresultviewer



Ticketview



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