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A Database Management Systems Mini Project report on

"GAME REVIEW MANAGEMENT SYSTEM"

Submitted in partial fulfillment of the requirement for the award of Degree of

BACHELOR OF ENGINEERING
IN
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By

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ACHARYA INSTITUTE OF TECHNOLOGY
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Certificate

Certified that the Database Management Systems mini project entitled **"GAME REVIEW MANAGEMENT SYSTEM"** is a bonafide work carried out by [**ANUBHAV TEKRIWAL - 1AY20CS018]** of 5th semester in partial fulfillment for the award of degree of **Bachelor of Engineering in Computer Science & Engineering of the Visvesvaraya Technological University**, **Belagavi**, during the year **2022-2023.** It is certified that all corrections/ suggestions indicated for internal assessments have been incorporated in the Report deposited in the departmental library. The Mini Project report has been approved as it satisfies the academic requirements in respect of Mini Project work prescribed for the **Bachelor of Engineering Degree**.

Signature of Guides **Signature of H.O.D**

Name of the examiners **Signature with date**

1.

2.

ABSTRACT

The Game Review Management System is a web-based application that allows users to read reviews of video games. It is a platform for players to access reviews of games and make informed decisions about the games they want to play. The system is designed to make it easy for players to find the games they are interested in and read reviews from other players. The admin can add reviewers by entering the reviewer's mail id in the database. They also have the ability to add newly released games to the website for the reviewers to review. The admin can update any information about the game they added or delete the game from the website. This allows for a dynamic and up-to-date database of games. When the reviewer logs in with their mail and password, they can add a review on the games added by the admin. Reviews include the player's number of hours spent playing the game, as well as written feedback. Each reviewer can only add one review on each game. Whenever the admin adds a game to the database, it will trigger the triggered data set which is visible on the website as to what new game has been added, updated, or removed. The players can sign up on the website by adding their data (like Name, Gender, Age, and preferred platform on which they usually play on). They can read reviews of the game published by the reviewers. The game reviews contain information such as name of the game, release date, publisher, available platforms, etc. Additionally, it has user authentication and authorization features to control who can add games, reviewers and submit reviews. The system aims to provide a platform for players to access accurate and up-to-date information about video games and make informed decisions about which games to play.

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CHAPTER 1

INTRODUCTION

1.1 INTRODUCTION TO DATABASE MANAGEMENT SYSTEM

Databases and database technology have a major impact on the growing use of computers. It is fair to say that databases play a critical role in almost all areas where computers are used, including business, electronic commerce, engineering, medicine, genetics, law, education, and library science. The word database is so commonly usedthat User must begin by defining what a database is. Our initial definition is quite general. A database is a collection of related data. By data, User mean known facts that can be recorded and that have implicit meaning. For example, consider the names, telephone numbers, and addresses of the people you know. You may have recorded this data in an indexed address book or you may have stored it on a hard drive, using a personal computer and software such as Microsoft Access or Excel. This collection of related data with an implicit meaning is a database. The preceding definition of database is quite general; for example, User may consider the collection of words that make up this page of text to be related data and hence to constitute a database. However, the common use ofthe term database is usually more restricted.

A **database** has the following **implicit properties**:

A database represents some aspect of the real world, sometimes called the mini world or the universe of discourse. Changes to the in world are reflected in the database.

A database is a logically coherent collection of data with some inherent meaning. A random assortment of data cannot correctly be referred to as a database

A database is designed, built, and populated with data for a specific purpose. It has an intended group of users and some preconceived applications in which these users are interested.

1.2 Overview of Project

The purpose of Game Review Management System is to allow users to read reviews of video games. It is a platform for players to access reviews of games and make informed decisions about the games they want to play. The system is designed to make it easy for players to find the games they are interested in and read reviews from other players.

The admin can add reviewers by entering the reviewer's mail id in the database. They also have the ability to add newly released games to the website for the reviewers to review. The admin can update any information about the game they added or delete the game from the website. This allows for a dynamic and up-to-date database of games.

When the reviewer logs in with their mail and password, they can add a review on the games added by the admin. Reviews include the player's number of hours spent playing the game, as well as written feedback.

Whenever the admin adds a game to the database, it will trigger the triggered data set which is visible on the website as to what new game has been added, updated, or removed. The players can sign up on the website by adding their data (like Name, Gender, Age, and preferred platform on which they usually play on). They can read reviews of the game published by the reviewers. The game reviews contain information such as name of the game, release date, publisher, available platforms, etc.

Additionally, it has user authentication and authorization features to control who can add games, reviewers and submit reviews. The system aims to provide a platform for players to access accurate and up-to-date information about video games and make informed decisions about which games to play.

Chapter 2

System Requirements Specification

2.1 Functional Requirements

The specific functional requirements of the Game Review Database Management are stated as follows:

1. Reviewer

Register a new reviewer.

It allows the different reviewers to access reviewing system.

Reviewer is able to access reviews.

Reviewer has the access to see the games which are not yet reviewed.

2. Admin

Admin can be able to login to a system.

Admin can be able manage games.

Admin can be able to access view the information regarding games.

Admin can be able to add games and access to information about games.

Admin can be able to access see the game information and change it.

Admin can be to add reviewers and view the information about reviewers.

2.2 Non Functional Requirements

2.2.1 Hardware Requirement

The section of hardware configuration is an important task related to the software development insufficient random-access memory may affect adversely on the speed and efficiency of the entire system. The process should be powerful to handle the entire operations. The hard disk should have sufficient capacity to store the file and application.

Processor	:	Intel PentiumT4200/ Intel Core Duo 2.0 GHz / more
RAM	:	Minimum 1GB RAM capacity
Hard disk	:	Minimum 40 GB ROM capacity
Cache Memory	:	L2-1 MB
GPU	:	Intel R HD Graphics

2.2.2 Software Requirement

A major element in building a system is the section of compatible software since the software in the market is experiencing in geometric progression. Selected software should be acceptable by the firm and one user as well as it should be feasible for the system.

This document gives a detailed description of the software requirement specification. The study of requirement specification is focused specially on the functioning of the system. It allows the developer or analyst to understand the system, function to be carried out the performance level to be obtained and corresponding interfaces to be established.

Front End	:	CSS, HTML
Back End	:	Python-Flask
Operation System	:	Windows 7/8/10/11
Web Server	:	XAMPP server, My SQL

2.3 About Technologies used

HTML: **HTML (Hypertext Markup Language)** is the standard language used to create web pages. It is a markup language, which means it uses a set of tags and attributes to describe the structure and content of a web page. The tags and attributes are used to define the layout and formatting of text, images, and other elements on the page. HTML documents are read by web browsers, which interpret the code and display the content on the screen. HTML is the foundation of all websites and is used in conjunction with other technologies such as **CSS** and **JavaScript** to create interactive and dynamic web pages.

CSS: CSS (Cascading Style Sheets) is a styling language used to describe the presentation of a document written in HTML. It is used to control the layout, colors, fonts, and other visual elements of a web page. By separating the presentation of a web page from its structure and content, CSS allows developers to make global changes to the design of a website quickly and

easily.

With CSS, developers can create responsive designs that adapt to different screen sizes, create animations and transitions, and control the display of elements based on user interactions. It allows you to control the layout and design of multiple pages at once by using classes and id's to select elements, and apply styles to them. CSS is an essential technology for creating visually appealing and user-friendly websites.

Python-Flask: Flask is a web framework for **Python** that is designed to be lightweight and easy to use. With Flask, developers can create web applications by defining routes, which map URLs to Python functions. These functions, known as "view functions," handle the logic for the corresponding pages or endpoints. Flask also provides a simple way to handle form data, cookies, and other HTTP requests and responses.

In addition to its core functionality, Flask can be extended with various extensions that add additional features such as authentication, database integration, and more. Flask is a popular choice for small to medium-sized web applications, and many larger web applications also use it as a lightweight base for their web application.

XAMPP, MYSQL: XAMPP is a web server solution package that includes the **Apache HTTP Server**, **MariaDB** (**MySQL**) database, and interpreters for scripts written in the PHP and Perl programming languages. The MariaDB is a drop-in replacement for MySQL, it is a fork of the MySQL Database, it was created by the original developers of MySQL when it was owned by Oracle.

The MariaDB included in XAMPP is a powerful and easy-to-use relational database management system that can be used to store, retrieve and manage data for web applications. It is based on the SQL (Structured Query Language) standard and is compatible with the vast majority of SQL commands used in MySQL. It also includes additional features such as support for **JSON** data types and virtual columns, making it more powerful and flexible than MySQL.

The MariaDB included in XAMPP is configured to run as a service, which means that it will start automatically when the computer is turned on, and it will run in the background, allowing the developers to connect to it and manage the database using a variety of tools, such as the command line, the **phpMyAdmin** web-based administration tool, or any other MySQL client.

XAMPP MySQL is a great tool for developers to test their web applications on their local machines and it is also used by many small and medium-sized web applications in production environments.

Chapter 3

SYSTEM DESIGN

3.1 ER Diagram

An entity-relationship model is usually the result of systematic analysis to define and describe what is important to processes in an area of a business. An E-R model does not define the business processes; if only presents a business data schema in graphical form. It is usually drawn in a graphical form as boxes (entities) that are connected by lines (relationships) which express the associations and dependencies between entities An ER model can also be expressed in a verbal form, for example one building may be divided into zero or more apartments, but one apartment can only be located on one building. Entities may be characterized not only by relationships, but also by additional properties (attributes), which include identifiers called "primary keys". Diagrams created to represent attributes as well as entities and relationships may be called entity-attribute relationship diagram.

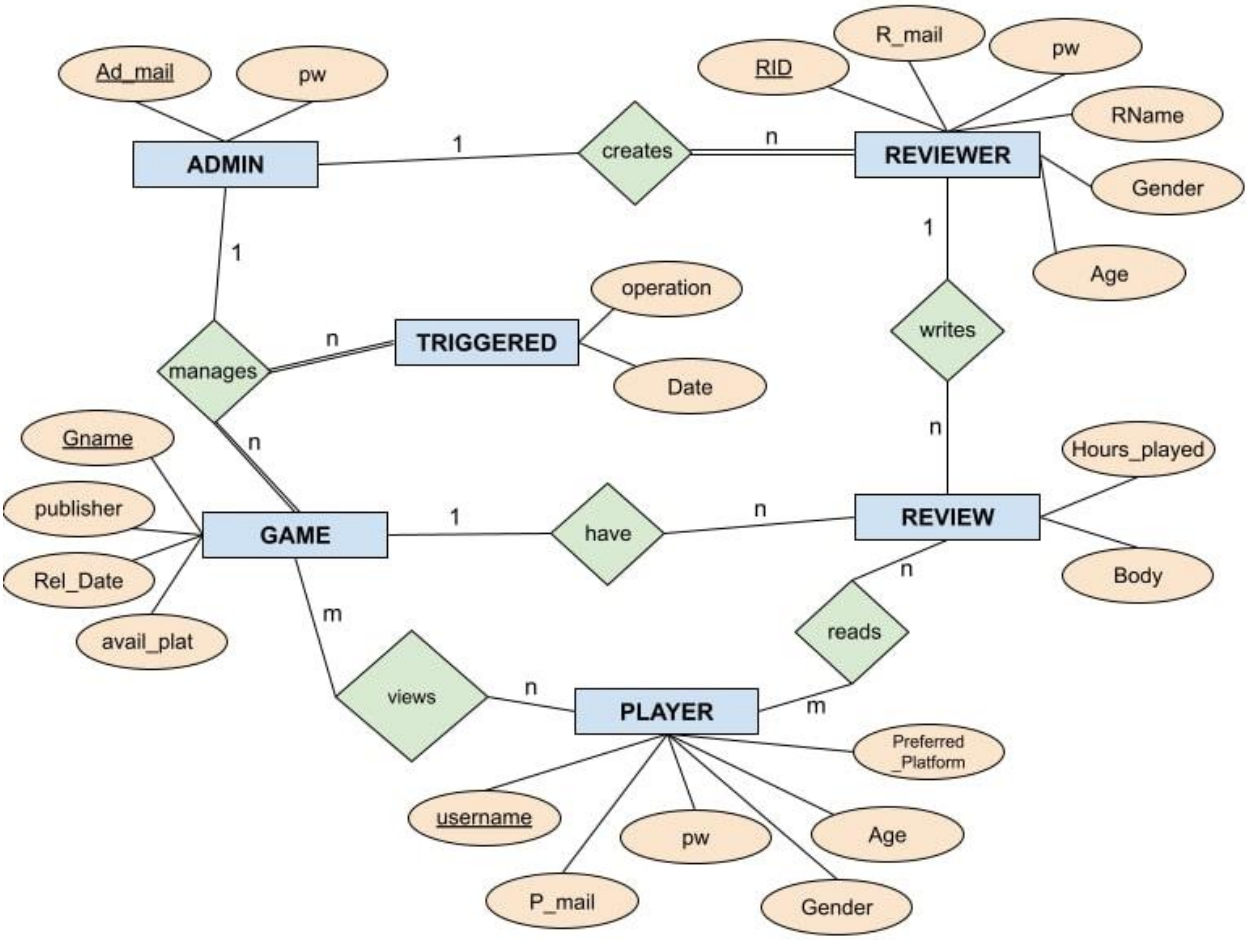


Fig-3.1: Entity Relationship Diagram

In a relational database a relationship between entities is implemented by storing the primary key ofone entity as a pointer or "foreign key in the table of another entity. There is a tradition for ER/data models to be built at two or three levels of abstraction. Note that the conceptual-logical-physical hierarchy below is used in other kinds of specification, and is different from the three schema approach to software engineering.

The **four** main **cardinal relationships** are

1. **One-to-one (1:1)** - For example, each customer in a database is associated with one mailing address.

2. **One-to-many (1: N)** - For example, a single customer might place an order for multiple products. The customer is associated with multiple entities but all those entities have a single connection back to the same customer.

3. **Many-to-one (N: 1)** - For example, many employees will have only one manager above them but one manager can havemany employees below him.

4. **Many-to-many (M: N)** - For example, at a company where allcall center agents work with multiple customers, each agent is associated with multiple customers, and each customers might also be associated with multiple agent.

3.2 Schema Diagram

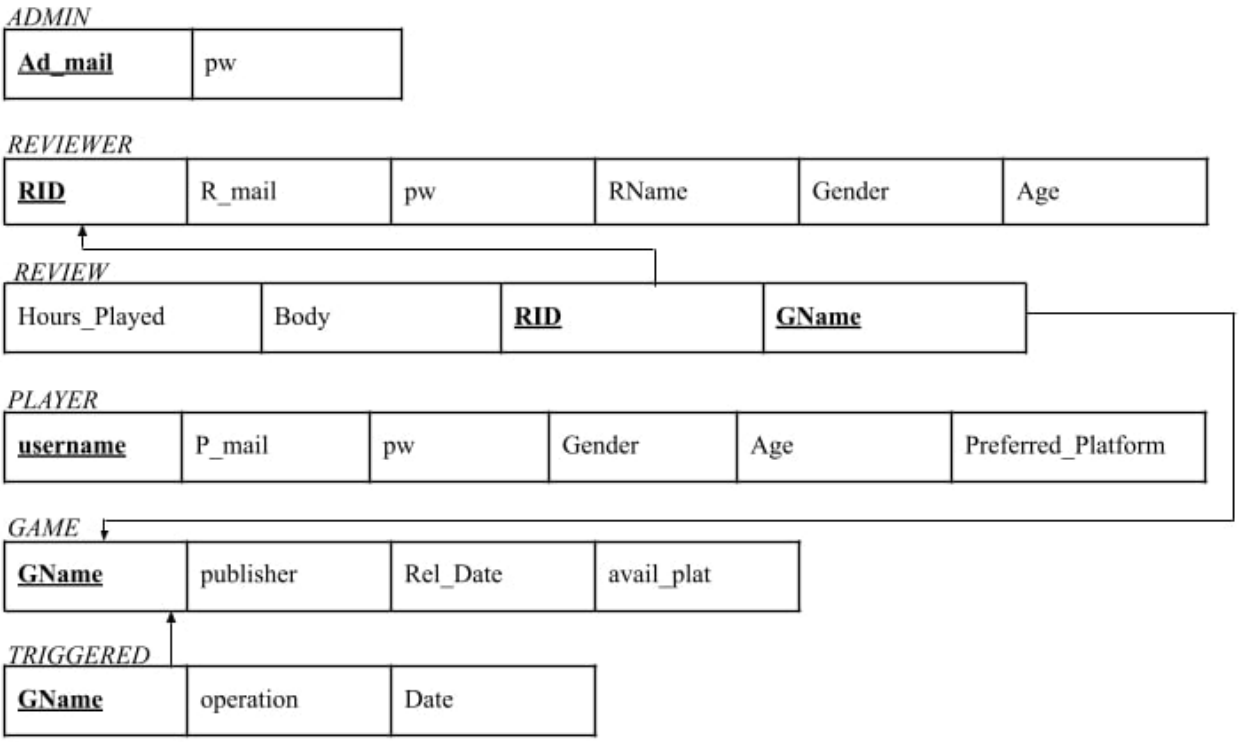


Fig-3.2: Schema Diagram

Chapter 4

System Implementation

4.1 Creation of Tables

SYNTAX:
CREATE TABLE table_name
(
column1 datatype,
column2 datatype,
    ....
PRIMARY KEY (column),
FOREIGN KEY (column) REFERENCES ParentTable (parent_Primary_key)
);

4.1.1 Player table

```
CREATE TABLE `player` (
  `username` varchar(40) NOT NULL,
  `P_mail` varchar(40) NOT NULL,
  `pw` varchar(1000) NOT NULL,
  `Gender` char(1) NOT NULL,
  `Age` int(3) NOT NULL,
  `Preferred_Platform` varchar(40) NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_general_ci;
```

	#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
☐	1	username	varchar(40)	utf8mb4_general_ci		No	None			Change Drop More
☐	2	P_mail	varchar(40)	utf8mb4_general_ci		No	None			Change Drop More
☐	3	pw	varchar(1000)	utf8mb4_general_ci		No	None			Change Drop More
☐	4	Gender	char(1)	utf8mb4_general_ci		No	None			Change Drop More
☐	5	Age	int(3)			No	None			Change Drop More
☐	6	Preferred_Platform	varchar(40)	utf8mb4_general_ci		No	None			Change Drop More

Fig-4.1.1

4.1.2 Admin table

```
CREATE TABLE `admin` (
  `Ad_mail` varchar(40) NOT NULL,
  `pw` varchar(1000) NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_general_ci;
```

	#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
☐	1	Ad_mail	varchar(40)	utf8mb4_general_ci		No	*None*			Change Drop More
☐	2	pw	varchar(1000)	utf8mb4_general_ci		No	*None*			Change Drop More

Fig-4.1.2

4.1.3 Reviewer table

```
CREATE TABLE `reviewer` (
  `RID` int(11) NOT NULL,
  `R_mail` varchar(40) NOT NULL,
  `pw` varchar(1000) NOT NULL,
  `RName` varchar(40) NOT NULL,
  `Gender` char(1) NOT NULL,
  `Age` int(3) NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_general_ci;
```

	#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
☐	1	RID	int(11)			No	*None*		AUTO_INCREMENT	Change Drop More
☐	2	R_mail	varchar(40)	utf8mb4_general_ci		No	*None*			Change Drop More
☐	3	pw	varchar(1000)	utf8mb4_general_ci		No	*None*			Change Drop More
☐	4	RName	varchar(40)	utf8mb4_general_ci		No	*None*			Change Drop More
☐	5	Gender	char(1)	utf8mb4_general_ci		No	*None*			Change Drop More
☐	6	Age	int(3)			No	*None*			Change Drop More

Fig-4.1. 3

4.1.4 Game table

```
CREATE TABLE `game` (
  `GName` varchar(40) NOT NULL,
  `publisher` varchar(40) NOT NULL,
  `Rel_Date` date NOT NULL,
  `avail_plat` varchar(100) NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_general_ci;
```

	#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
☐	1	**GName**	varchar(40)	utf8mb4_general_ci		No	*None*			Change Drop More
☐	2	**publisher**	varchar(40)	utf8mb4_general_ci		No	*None*			Change Drop More
☐	3	**Rel_Date**	date			No	*None*			Change Drop More
☐	4	**avail_plat**	varchar(100)	utf8mb4_general_ci		No	*None*			Change Drop More

Fig-4.1.4

4.1.5 Review table

```
CREATE TABLE `review` (
  `Hours_Played` int(5) NOT NULL,
  `Body` varchar(800) NOT NULL,
  `RID` int(11) NOT NULL,
  `GName` varchar(40) NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_general_ci;
```

	#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
☐	1	**Hours_Played**	int(5)			No	*None*			Change Drop More
☐	2	**Body**	varchar(800)	utf8mb4_general_ci		No	*None*			Change Drop More
☐	3	**RID**	int(11)			No	*None*			Change Drop More
☐	4	**GName**	varchar(40)	utf8mb4_general_ci		No	*None*			Change Drop More

Fig-4.1*5*

4.1.6 Triggered table

```
CREATE TABLE `triggered` (
  `GName` varchar(40) NOT NULL,
  `operation` text NOT NULL,
  `Time` datetime NOT NULL DEFAULT current_timestamp()
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_general_ci;
```

	#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
☐	1	**GName**	varchar(40)	utf8mb4_general_ci		No	*None*			Change Drop More
☐	2	**operation**	text	utf8mb4_general_ci		No	*None*			Change Drop More
☐	3	**Time**	datetime			No	current_timestamp()			Change Drop More

Fig-4.1.6

4.2 Insertion of Values

INSERT INTO `admin` (`Ad_mail`, `pw`) VALUES

('ait.anubhav@gmail.com', '6299581147),

('amanb.20.becs@acharya.ac.in', '7070862608');

	Ad_mail	pw
Edit Copy Delete	ait.anubhav@gmail.com	pbkdf2:sha256:260000$cvAVVYU7l5nwgfvx$06a1c2732bde...
Edit Copy Delete	amanb.20.becs@acharya.ac.in	pbkdf2:sha256:260000$UFglJQfYzF2farDn$eddde9cd5d19...

Fig-4.2.1

INSERT INTO `game` (`GName`, `publisher`, `Rel_Date`, `avail_plat`)
VALUES

('Assassins creed', 'Ubisoft', '2013-10-29', 'PS'),

('DMC: Devil May Cry', 'Ninja Theory', '2013-01-15', 'Windows'),

('Far Cry 3', 'Ubisoft', '2012-10-30', 'xbox'),

('GTA: Vice City', 'Rockstar Games', '2002-10-29', 'Windows'),

('Maneater', 'Saban Capital Group', '2022-03-02', 'xbox'),

('Minecraft', 'Mojang Studios', '2011-10-07', 'Android'),

('Naruto Shippuden', 'BNE Entertainment', '2014-09-11', 'xbox'),

('NFS: Most Wanted 2', 'EA Games', '2012-10-30', 'PS'),

('PUBG', 'Tencent Games', '2018-03-19', 'Android'),

('Spider-Man', 'Marvel', '2018-09-07', 'PS');

	GName	publisher	Rel_Date	avail_plat
Edit Copy Delete	Assassins creed	Ubisoft	2013-10-29	PS
Edit Copy Delete	DMC: Devil May Cry	Ninja Theory	2013-01-15	Windows
Edit Copy Delete	Far Cry 3	Ubisoft	2012-10-30	xbox
Edit Copy Delete	GTA: Vice City	Rockstar Games	2002-10-29	Windows
Edit Copy Delete	Maneater	Saban Capital Group	2022-03-02	xbox
Edit Copy Delete	Minecraft	Mojang Studios	2011-10-07	Android
Edit Copy Delete	Naruto Shippuden	BNE Entertainment	2014-09-11	xbox
Edit Copy Delete	NFS: Most Wanted 2	EA Games	2012-10-30	PS
Edit Copy Delete	PUBG	Tencent Games	2018-03-19	Android
Edit Copy Delete	Spider-Man	Marvel	2018-09-07	PS

Fig-4.2.2

INSERT INTO `player` (`username`, `P_mail`, `pw`, `Gender`, `Age`, `Preferred_Platform`) VALUES

('Aman Rocker', 'aman27kumar0301@gmail.com', '7070862608', 'M', 20, 'PS'),

('Cosmic', 'cosmic@gmail.com', '12345678, 'F', 26, 'Android'),

('Homie', 'smartytekriwal@gmail.com', '6299581147', 'M', 21, 'Windows'),

('test', 'some@gmail.com', '123456', 'M', 26, 'xbox');

	username	P_mail	pw	Gender	Age	Preferred_Platform
Edit Copy Delete	Aman Rocker	aman27kumar0301@gmail.com	pbkdf2:sha256:260000$qLgLSHFvr7dcUKq2$2deeb7322044...	M	20	PS
Edit Copy Delete	Cosmic	cosmic@gmail.com	pbkdf2:sha256:260000$G7DJAzMYW9DjgnXt$93d9326dda6f...	F	26	Android
Edit Copy Delete	Homie	smartytekriwal@gmail.com	pbkdf2:sha256:260000$w5npJdY5fVtLwAvt$d6d104d85440...	M	21	Windows
Edit Copy Delete	test	some@gmail.com	pbkdf2:sha256:260000$bU87k8g4lvM15Ku3$275a5fad17e6...	M	26	xbox

Fig-4.2.3

INSERT INTO `reviewer` (`RID`, `R_mail`, `pw`, `RName`, `Gender`, `Age`) VALUES

(7, 'nmathur@gmail.com', 'nmathur', 'Naman Mathur', 'M', 25),

(8, 'bbs@gmail.com', 'nmathur', 'BeastBoyShub', 'M', 29),

(9, 'siaman@gmail.com', 'nmathur', 'Saiman Says', 'M', 34),

(10, 'payal@gmail.com', 'nmathur', 'Payal Gaming', 'F', 22),

(11, 'pdp@gmail.com', 'nmathur', 'PewDiePie', 'M', 46);

	RID	R_mail	pw	RName	Gender	Age
Edit Copy Delete	7	nmathur@gmail.com	pbkdf2:sha256:260000$ScnhnWplzEt9KDqb$51c7d911b3b2...	Naman Mathur	M	25
Edit Copy Delete	8	bbs@gmail.com	pbkdf2:sha256:260000$LOUoshKtcxKgFPVS$c1d51e6d1a48...	BeastBoyShub	M	29
Edit Copy Delete	9	siaman@gmail.com	pbkdf2:sha256:260000$f0QPdFQJ39neLJGY$b82e68ce7d46...	Saiman Says	M	34
Edit Copy Delete	10	payal@gmail.com	pbkdf2:sha256:260000$KupGsyZ4mGdZi6pc$7574519620ea...	Payal Gaming	F	22
Edit Copy Delete	11	pdp@gmail.com	pbkdf2:sha256:260000$OT5wHeOODdU7MAqt$122c289a95fd...	PewDiePie	M	46

Fig-4.2.4

INSERT INTO `review` (`Hours_Played`, `Body`, `RID`, `GName`) VALUES
(12, 'Powerful action', 7, 'DMC: Devil May Cry'),
(25, 'Must play!', 7, 'Far Cry 3'),
(42, 'All time favorite', 7, 'GTA: Vice City'),
(26, 'Beautiful as well as thrilling game. Wonderful memories', 7, 'Minecraft'),
(55, 'Thrilling, Fast Paced', 7, 'NFS: Most Wanted 2'),
(86, 'GOAT.', 7, 'PUBG');

	Hours_Played	Body	RID	GName
Edit Copy Delete	12	Powerful action	7	DMC: Devil May Cry
Edit Copy Delete	25	Must play!	7	Far Cry 3
Edit Copy Delete	42	All time favorite	7	GTA: Vice City
Edit Copy Delete	26	Beautiful as well as thrilling game. Wonderful mem...	7	Minecraft
Edit Copy Delete	55	Thrilling, Fast Paced	7	NFS: Most Wanted 2
Edit Copy Delete	86	GOAT.	7	PUBG

Fig-4.2.5

INSERT INTO `triggered` (`GName`, `operation`, `Time`) VALUES
('PUBG', 'ADDED', '2023-01-27 23:34:16'),
('PUBG', 'DELETE', '2023-01-27 23:34:24'),
('PUBG', 'ADDED', '2023-01-27 23:35:44'),
('PUBG', 'UPDATED', '2023-01-27 23:36:23'),
('PUBG', 'DELETED', '2023-01-27 23:36:34'),
('PUBG', 'ADDED', '2023-01-28 01:22:55'),
('Minecraft', 'ADDED', '2023-01-28 01:51:32'),
('Spider-Man', 'ADDED', '2023-01-28 01:55:03'),
('Maneater', 'ADDED', '2023-01-28 01:55:59'),
('Naruto Shippuden', 'ADDED', '2023-01-28 01:57:57'),
('Assassins creed', 'ADDED', '2023-01-28 01:59:14');

GName	operation	Time
PUBG	ADDED	2023-01-27 23:34:16
PUBG	DELETE	2023-01-27 23:34:24
PUBG	ADDED	2023-01-27 23:35:44
PUBG	UPDATED	2023-01-27 23:36:23
PUBG	DELETED	2023-01-27 23:36:34
PUBG	ADDED	2023-01-28 01:22:55
Minecraft	ADDED	2023-01-28 01:51:32
Spider-Man	ADDED	2023-01-28 01:55:03
Maneater	ADDED	2023-01-28 01:55:59
Naruto Shippuden	ADDED	2023-01-28 01:57:57
Assassins creed	ADDED	2023-01-28 01:59:14

Fig-4.2.6

4.3 QUERIES

Showing rows 0 - 3 (4 total, Query took 0.0031 seconds.)

```
SELECT * FROM `GAME` where `gname` not in(select `gname` from `review`);
```

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all | Number of rows: 25 Filter rows: Search this table Sort by key: None

Extra options

	GName	publisher	Rel_Date	avail_plat
Edit Copy Delete	Assassins creed	Ubisoft	2013-10-29	PS
Edit Copy Delete	Maneater	Saban Capital Group	2022-03-02	xbox
Edit Copy Delete	Naruto Shippuden	BNE Entertainment	2014-09-11	xbox
Edit Copy Delete	Spider-Man	Marvel	2018-09-07	PS

Fig-4.3.1

Showing rows 0 - 10 (11 total, Query took 0.0007 seconds.) [Time: **2023-01-28 01:59:14... - 2023-01-27 23:34:16...**]

```
SELECT * FROM `triggered` ORDER BY `triggered`.`Time` DESC;
```

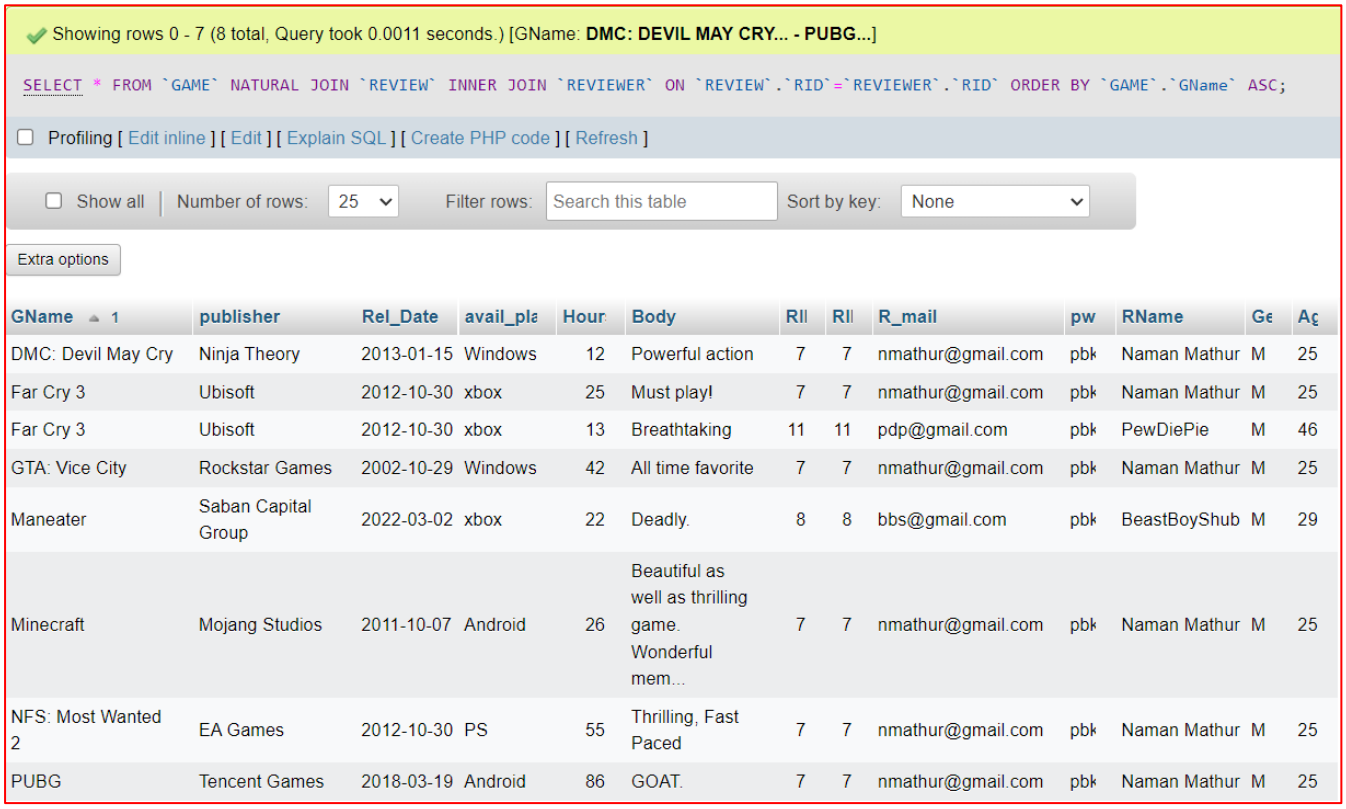
Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all | Number of rows: 25 Filter rows: Search this table

Extra options

GName	operation	Time 1
Assassins creed	ADDED	2023-01-28 01:59:14
Naruto Shippuden	ADDED	2023-01-28 01:57:57
Maneater	ADDED	2023-01-28 01:55:59
Spider-Man	ADDED	2023-01-28 01:55:03
Minecraft	ADDED	2023-01-28 01:51:32
PUBG	ADDED	2023-01-28 01:22:55
PUBG	DELETED	2023-01-27 23:36:34
PUBG	UPDATED	2023-01-27 23:36:23
PUBG	ADDED	2023-01-27 23:35:44
PUBG	DELETE	2023-01-27 23:34:24
PUBG	ADDED	2023-01-27 23:34:16

Fig-4.3.2



Showing rows 0 - 7 (8 total, Query took 0.0011 seconds.) [GName: **DMC: DEVIL MAY CRY... - PUBG...**]

```
SELECT * FROM `GAME` NATURAL JOIN `REVIEW` INNER JOIN `REVIEWER` ON `REVIEW`.`RID`=`REVIEWER`.`RID` ORDER BY `GAME`.`GName` ASC;
```

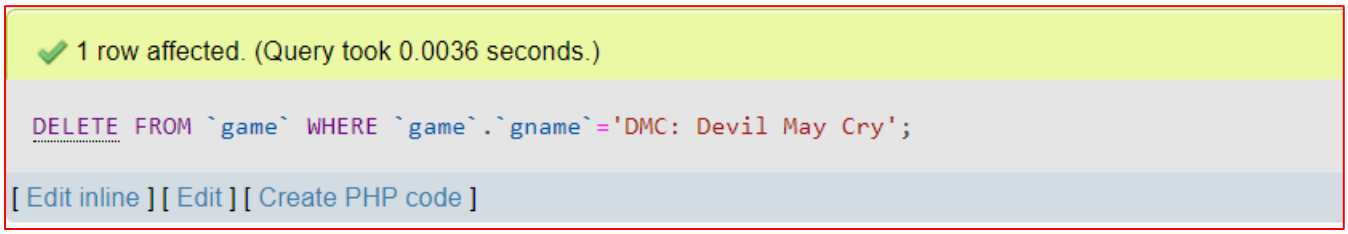
Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all | Number of rows: 25 Filter rows: Search this table Sort by key: None

Extra options

GName ▲ 1	publisher	Rel_Date	avail_pla	Hour	Body	Rll	Rll	R_mail	pw	RName	Ge	Ag
DMC: Devil May Cry	Ninja Theory	2013-01-15	Windows	12	Powerful action	7	7	nmathur@gmail.com	pbk	Naman Mathur	M	25
Far Cry 3	Ubisoft	2012-10-30	xbox	25	Must play!	7	7	nmathur@gmail.com	pbk	Naman Mathur	M	25
Far Cry 3	Ubisoft	2012-10-30	xbox	13	Breathtaking	11	11	pdp@gmail.com	pbk	PewDiePie	M	46
GTA: Vice City	Rockstar Games	2002-10-29	Windows	42	All time favorite	7	7	nmathur@gmail.com	pbk	Naman Mathur	M	25
Maneater	Saban Capital Group	2022-03-02	xbox	22	Deadly.	8	8	bbs@gmail.com	pbk	BeastBoyShub	M	29
Minecraft	Mojang Studios	2011-10-07	Android	26	Beautiful as well as thrilling game. Wonderful mem...	7	7	nmathur@gmail.com	pbk	Naman Mathur	M	25
NFS: Most Wanted 2	EA Games	2012-10-30	PS	55	Thrilling, Fast Paced	7	7	nmathur@gmail.com	pbk	Naman Mathur	M	25
PUBG	Tencent Games	2018-03-19	Android	86	GOAT.	7	7	nmathur@gmail.com	pbk	Naman Mathur	M	25

Fig-4.3.3

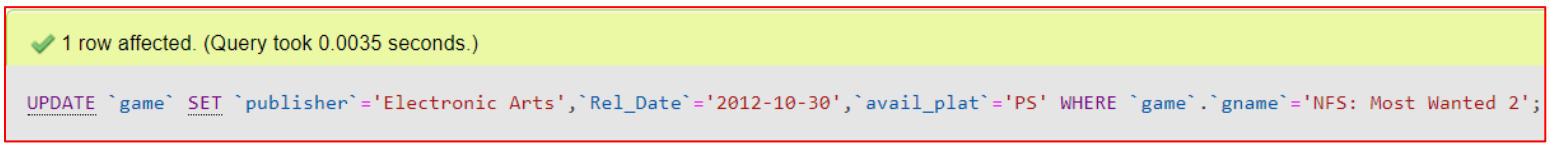


1 row affected. (Query took 0.0036 seconds.)

```
DELETE FROM `game` WHERE `game`.`gname`='DMC: Devil May Cry';
```

[Edit inline] [Edit] [Create PHP code]

Fig-4.3.4



1 row affected. (Query took 0.0035 seconds.)

```
UPDATE `game` SET `publisher`='Electronic Arts',`Rel_Date`='2012-10-30',`avail_plat`='PS' WHERE `game`.`gname`='NFS: Most Wanted 2';
```

Fig-4.3.5

4.4 TRIGGERS

A trigger is a stored procedure in database which automatically invokes whenever a special event in the database occurs. For example, a trigger can be invoked when a row is inserted into a specified table or when certain table columns are being updated.

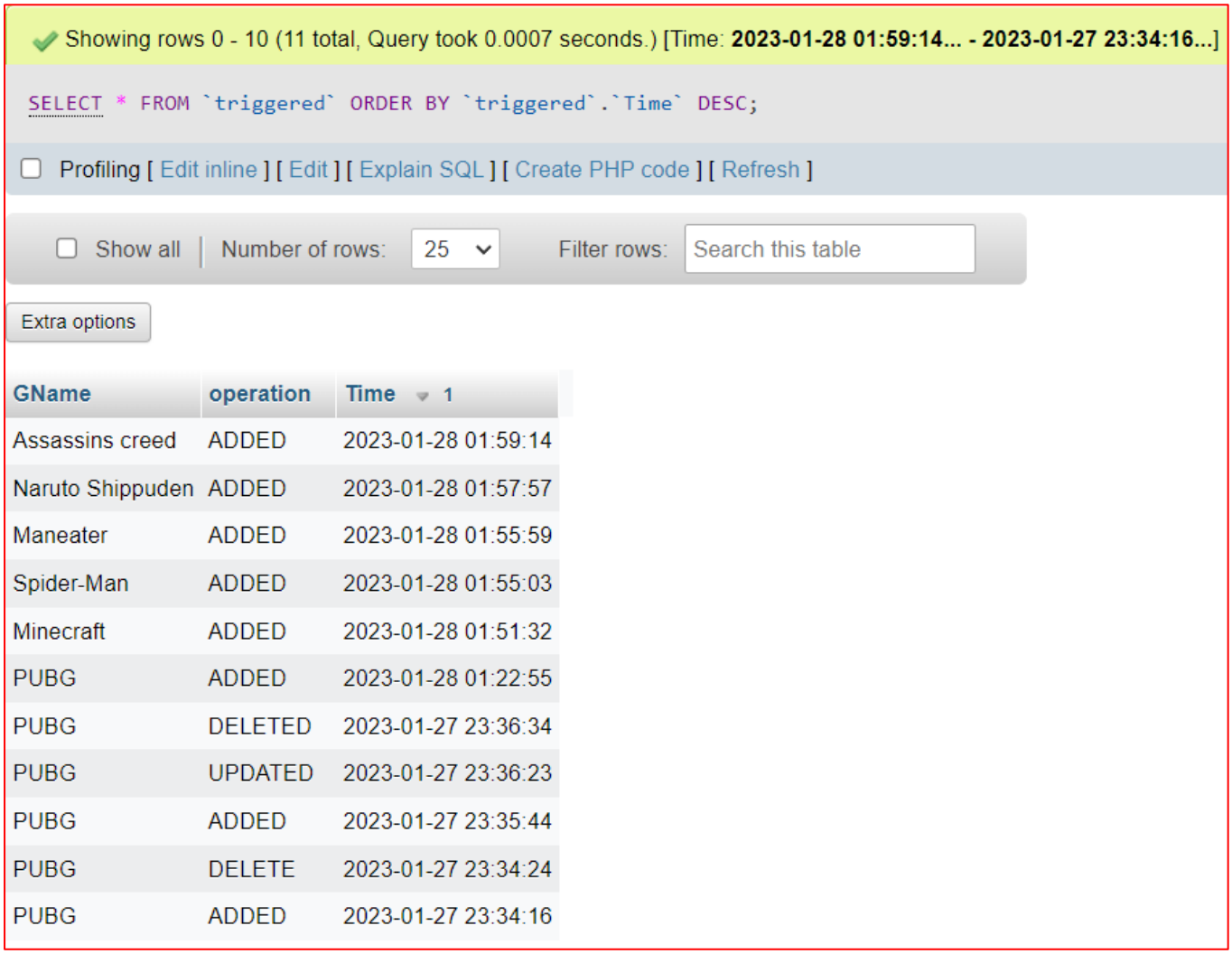
Syntax:

```
create trigger [trigger_name]
[before | after]
{insert | update | delete}
on [table_name]
[for each row]
[trigger_body]
```

Explanation of syntax:

create trigger [trigger_name]: Creates or replaces anexisting trigger with the trigger_name.
[before | after]: This specifies when the trigger willbe executed.
{insert | update | delete}: This specifies the DMLoperation.
on [table_name]: This specifies the name of thetable associated with the trigger.
[for each row]: This specifies a row-level trigger, i.e., the trigger will be executed for each row being affected.
[trigger_body]: This provides the operation to beperformed as trigger is fired.

```
DELIMITER $$
CREATE TRIGGER `DELGames` BEFORE DELETE ON `game`
FOR EACH ROW INSERT INTO triggered VALUES(OLD.GName,'DELETED',NOW())
$$ DELIMITER ;
DELIMITER $$
CREATE TRIGGER `NAGames` AFTER INSERT ON `game`
FOR EACH ROW INSERT INTO triggered VALUES(NEW.GName,'ADDED',NOW())
$$ DELIMITER ;
DELIMITER $$
CREATE TRIGGER `NDGames` AFTER UPDATE ON `game`
FOR EACH ROW INSERT INTO triggered VALUES(NEW.GName,'UPDATED',NOW())
$$ DELIMITER ;
```



GName	operation	Time 1
Assassins creed	ADDED	2023-01-28 01:59:14
Naruto Shippuden	ADDED	2023-01-28 01:57:57
Maneater	ADDED	2023-01-28 01:55:59
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PUBG	UPDATED	2023-01-27 23:36:23
PUBG	ADDED	2023-01-27 23:35:44
PUBG	DELETE	2023-01-27 23:34:24
PUBG	ADDED	2023-01-27 23:34:16

Fig-4.4

Chapter 5

Result and Discussions

5.1 Home Page

Description: It shows Home Page which allows to login as admin, player or reviewer. Admin is the owner of the database where as users and reviewers are clients.

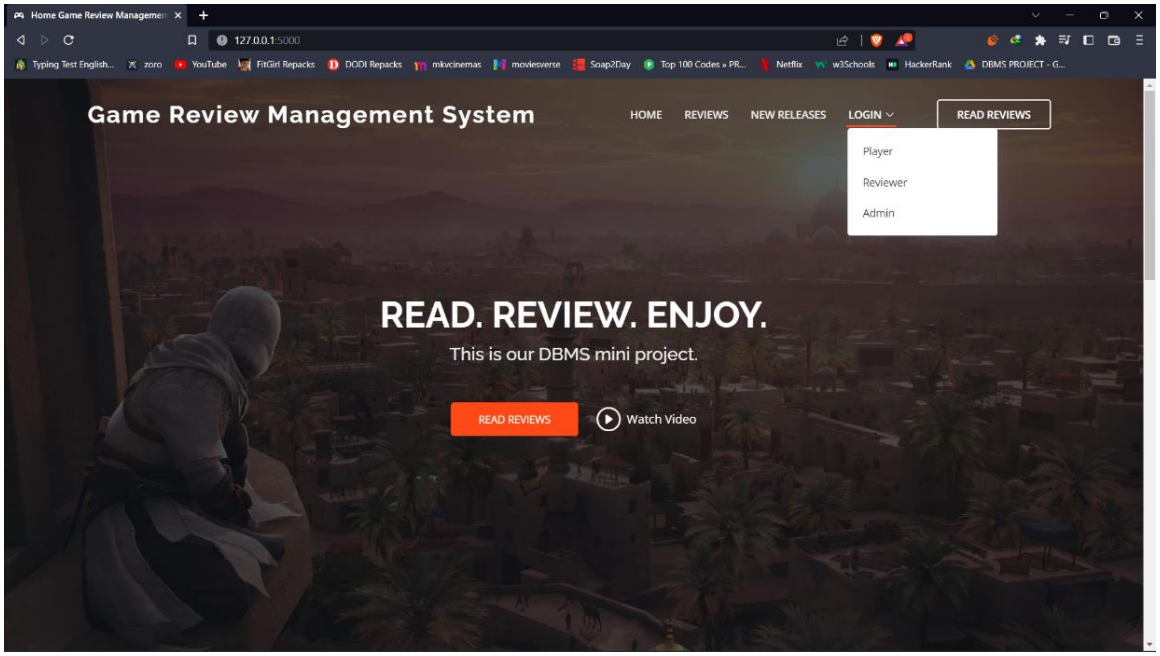

Fig-5.1

5.2 Admin Login Page

Description: It shows admin login page which gives authentication to enter into the Admin page. It navigates to the admin home page if username and password are correct, else it popup error.

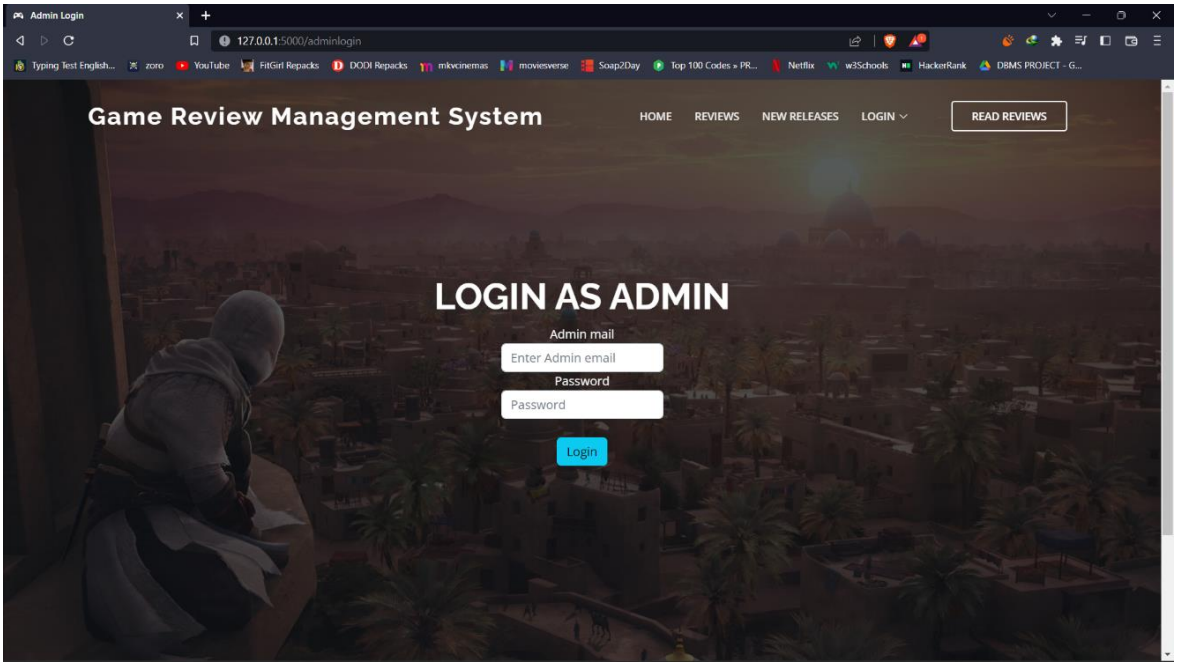

Fig-5.2

5.3 Admin's Profile Page

Description: It shows that an admin has logged in and they can add games, delete games, update games, add reviewer or logout which redirects to their appropriate pages.

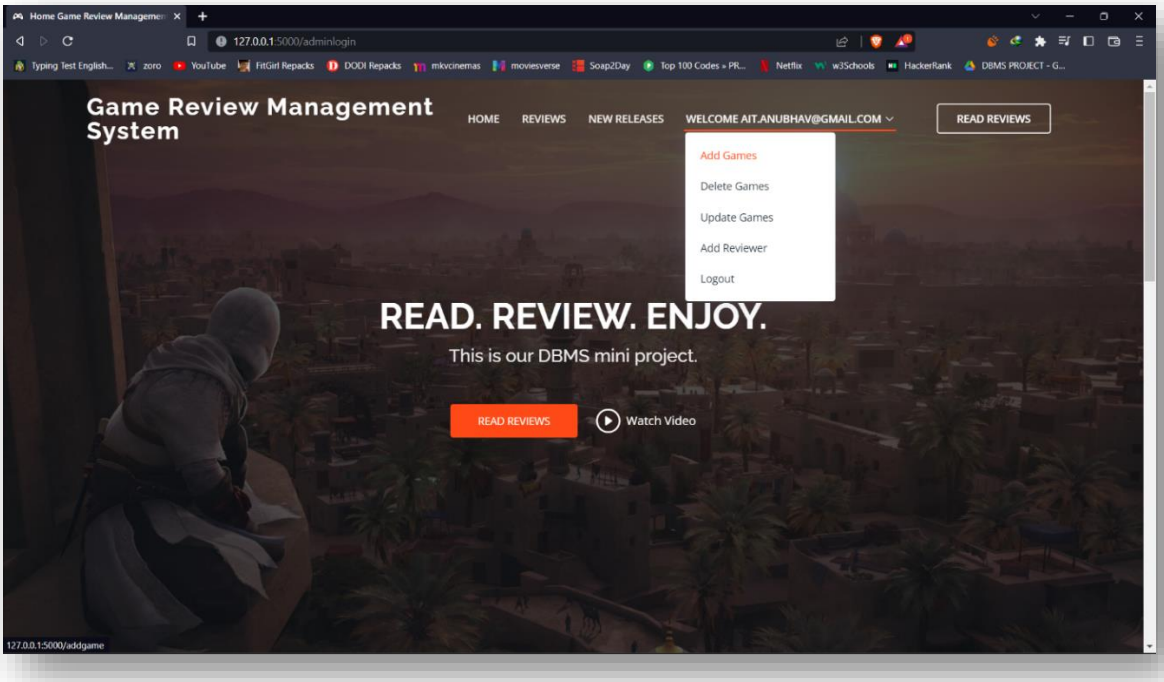

Fig-5.3

5.4 Player Login Page

Description: It shows admin login page which gives authentication to enter into the Player login page. It navigates to the admin home page if username and password are correct,else it popup error.

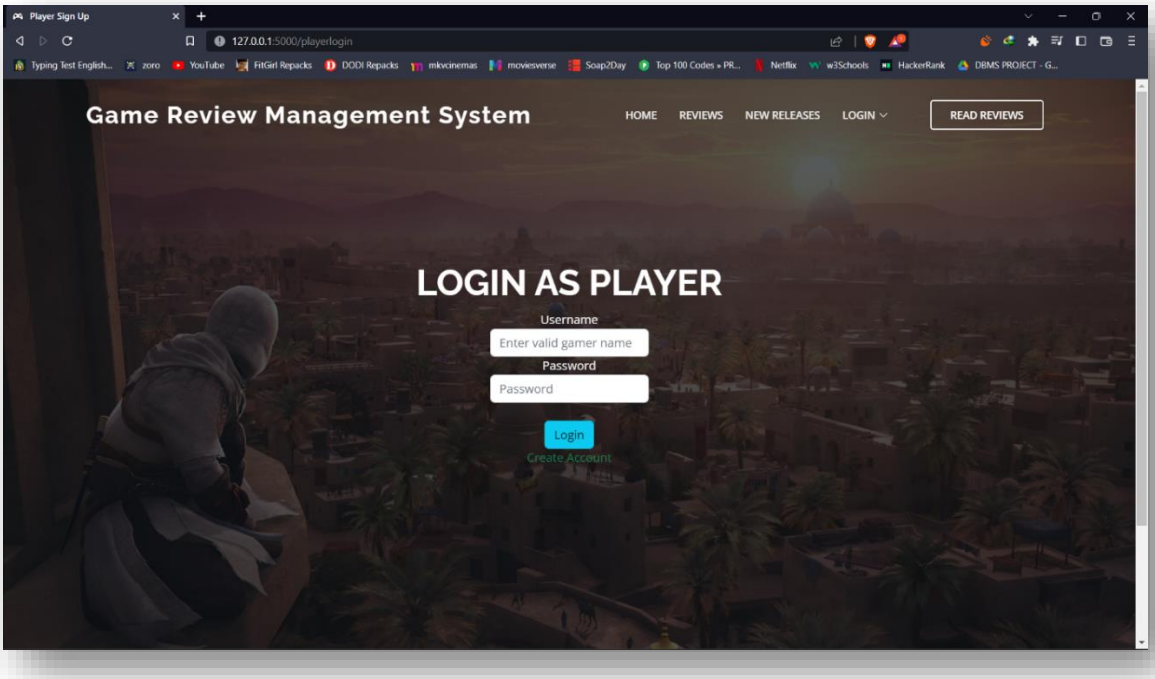

Fig-5.4

5.5 Read Review Page

Description: This page shows the reviews which have been posted by the reviewers. Reading reviews doesn't require any authentication.

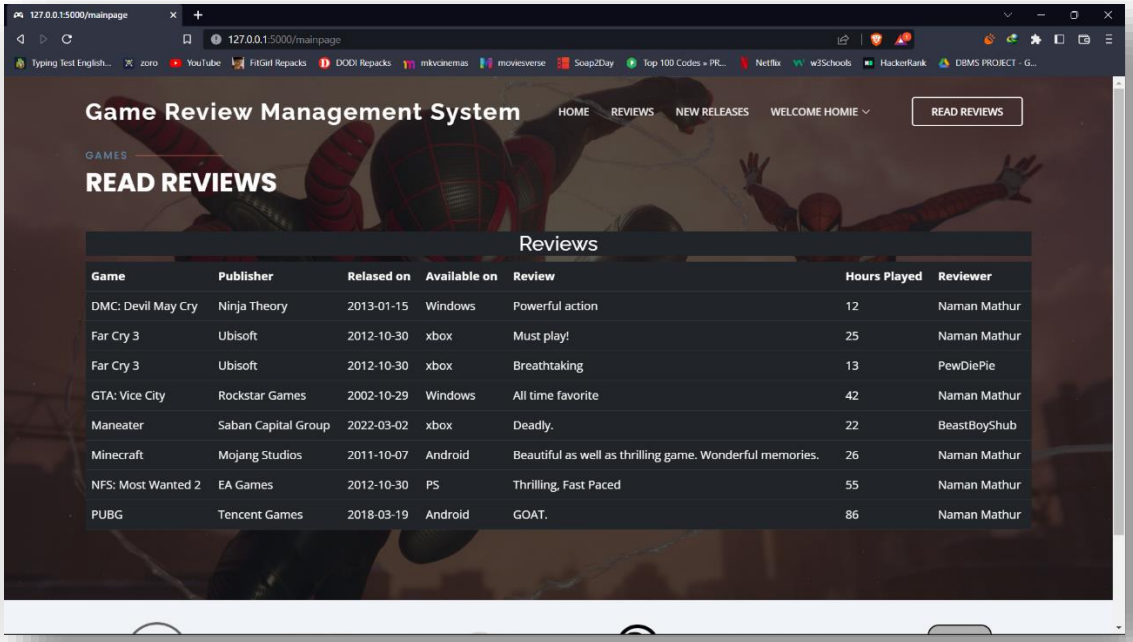

Fig-5.5

5.6 Reviewer Login Page

Description: It shows reviewer login page which gives authentication to enter into the Reveiwer login page. It navigates to the Reviewer home page if Reviewer mail and password are correct, else it popup error.

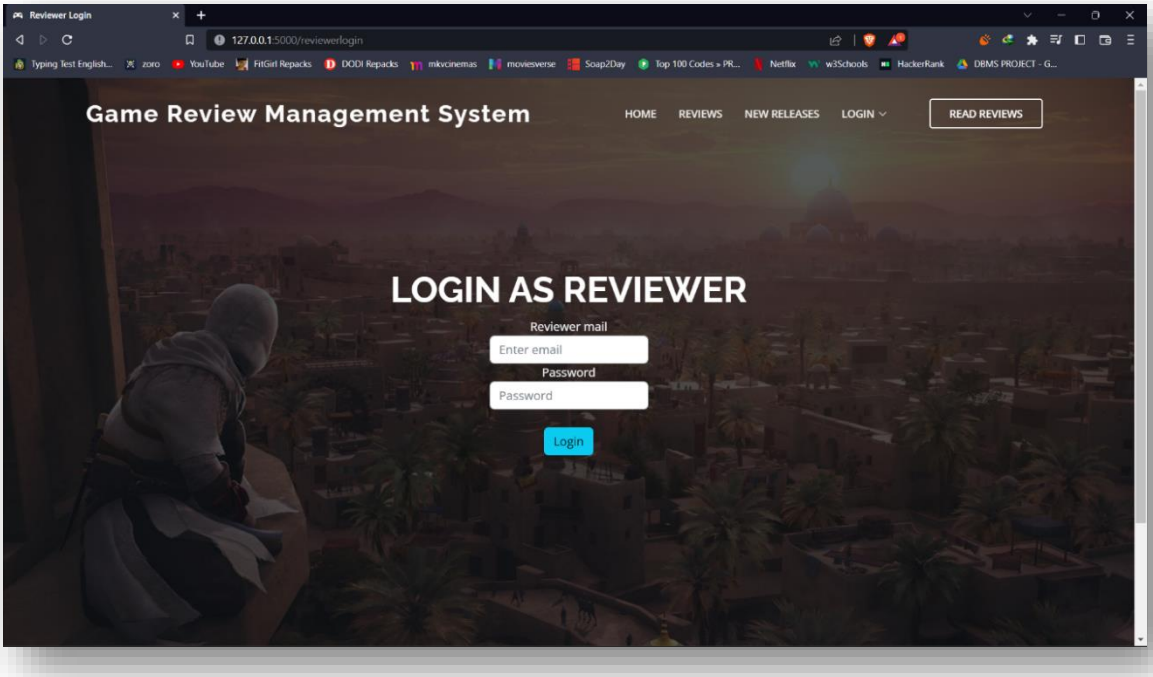

Fig-5.6

5.7 Reviewer Profile Page

Description: After the reviewer logs in, they land on this page where they can navigate to add reviews or logout.

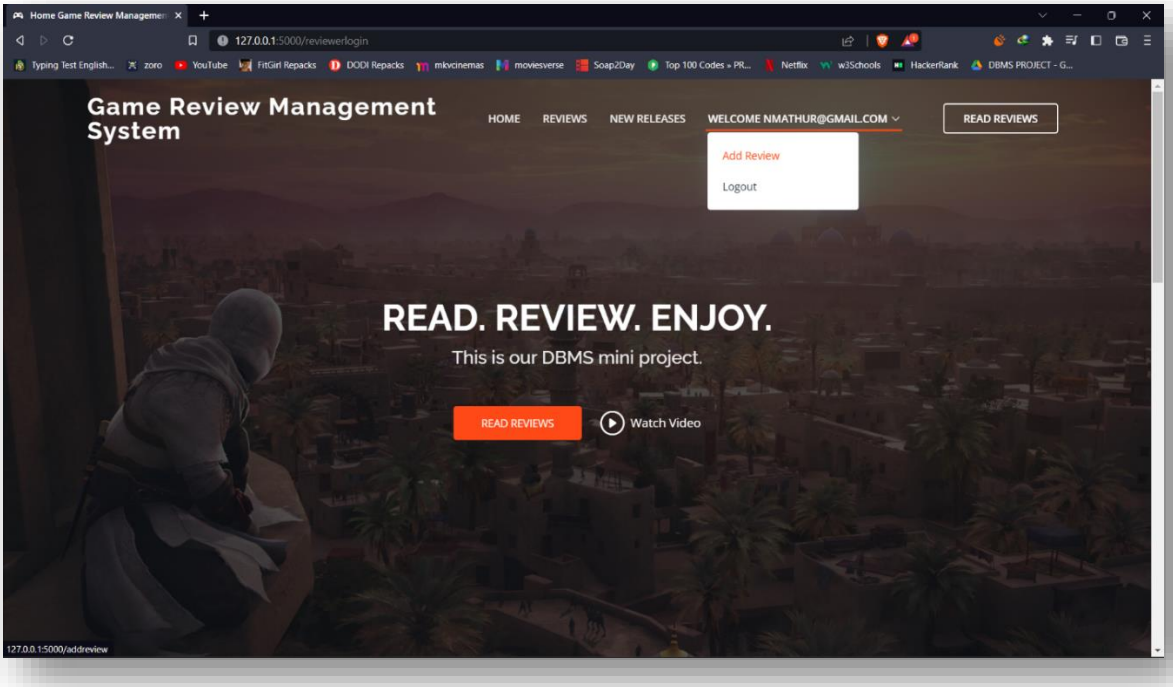

Fig-5.7

5.8 Add Review Page

Description: Here, we can see all the games. The reviewer can add their review by providing the information in the field. Each reviewer can add one review to every game.

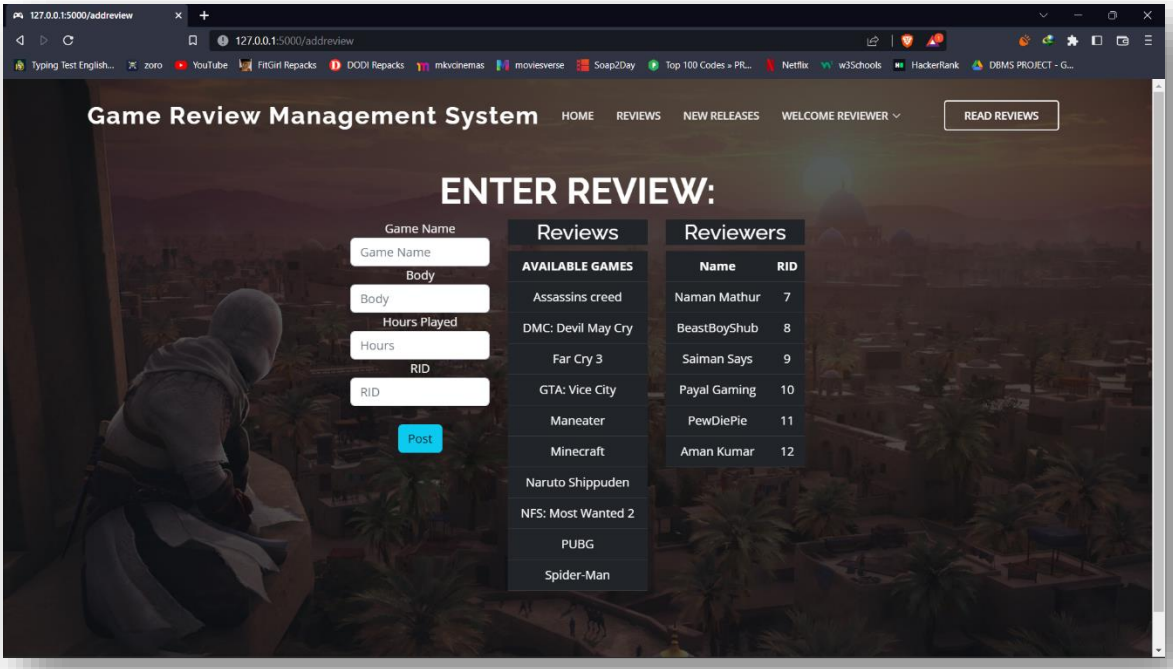

Fig-5.8

5.9 Add Game Page

Description: Here, the games added by the admins is visible to the logged in admin. They can add more games to the database by providing the information in the fields.

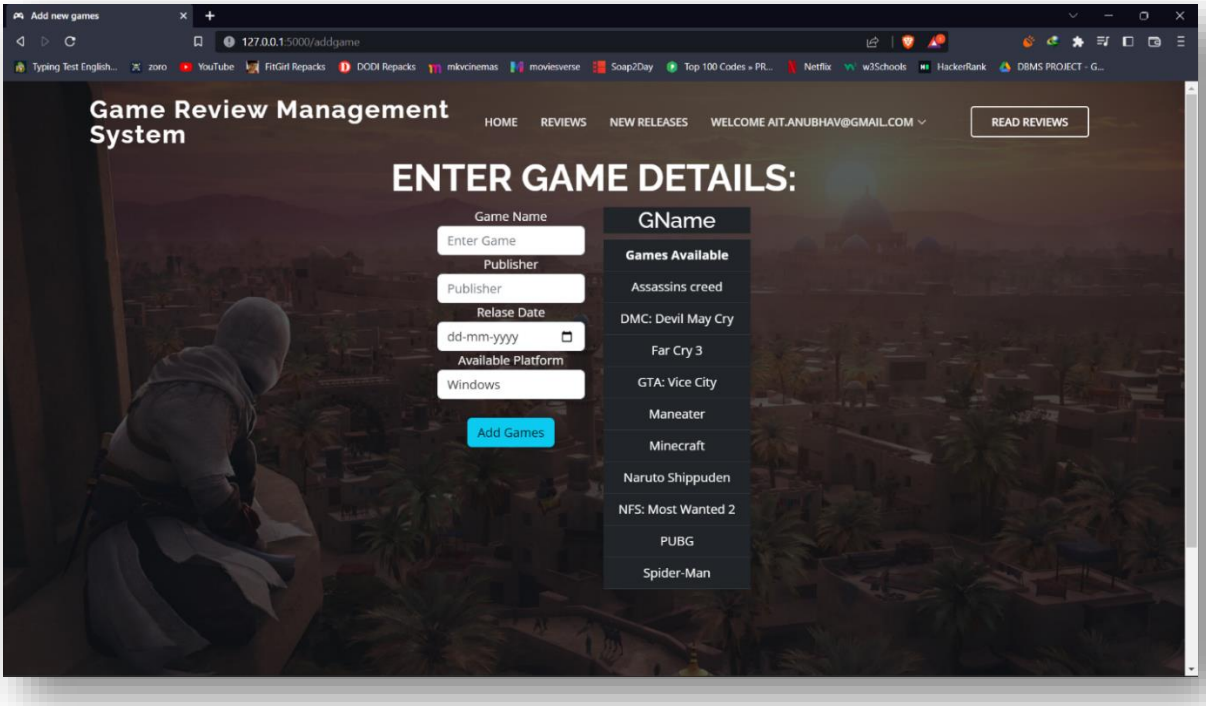

Fig-5.9

5.10 Delete Game Page

Description: Here, the games added by the admins is visible to the logged in admin and they can remove any game from the database. If the game name is not available in the database, it will show the appropriate message.

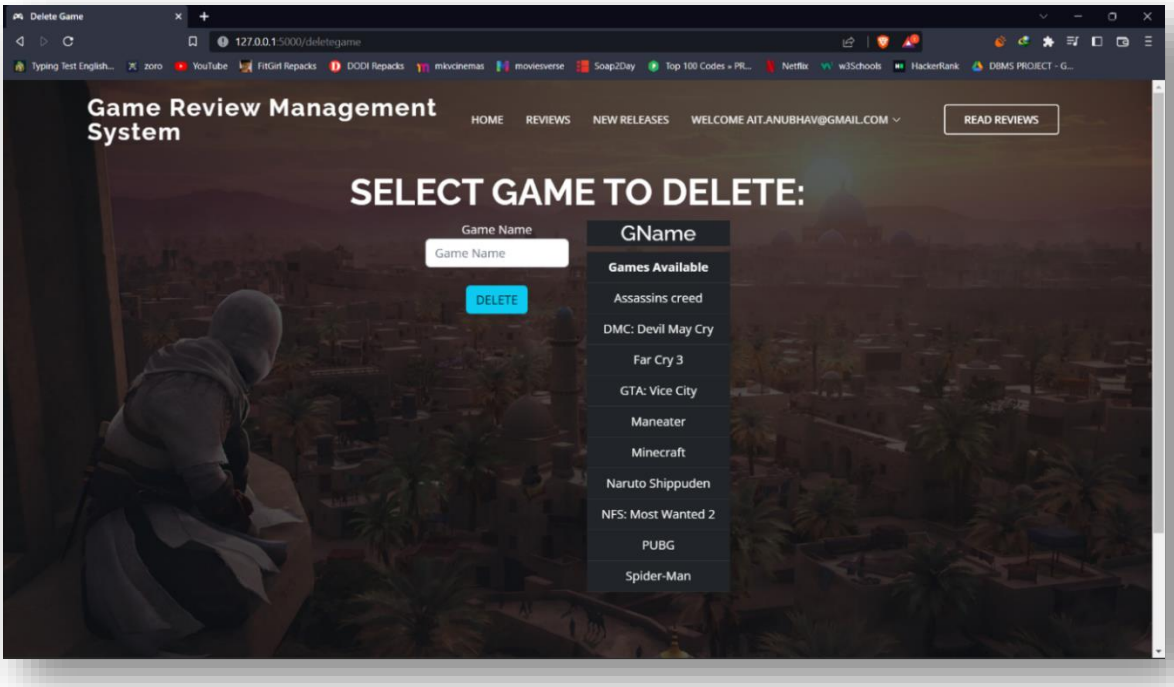

Fig-5.10

5.11 Update Game Details Page

Description: Admin can access this webpage by logging in their account and navigating through the navigation bar. If any detail about any Game needs to be changed or updated, admin can do this by providing the information in the fields (Game name can't be updated).

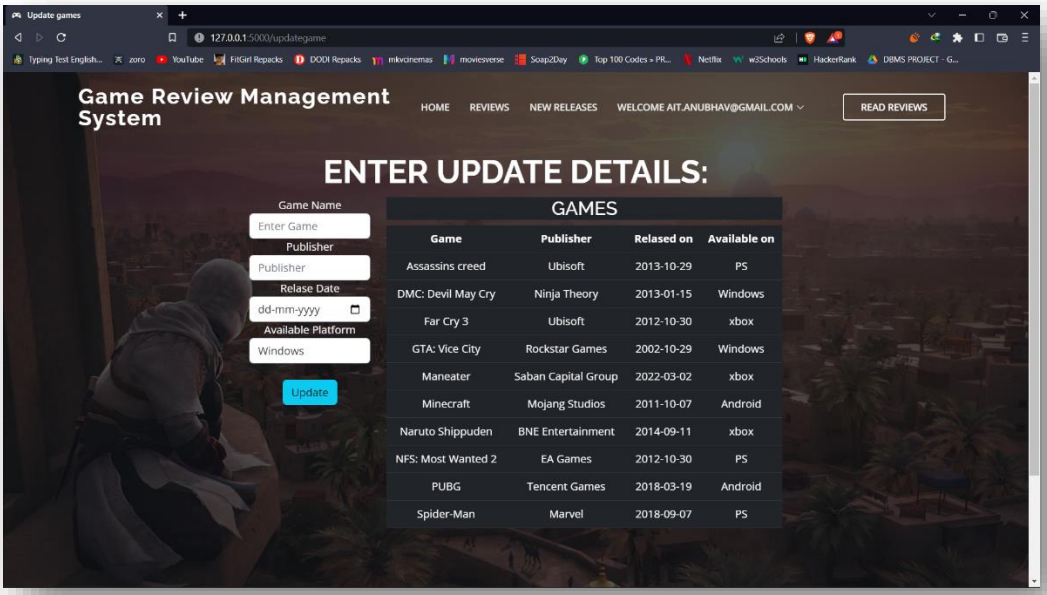

Fig-5.11

5.12 Add Reviewer Page

Description: Admin can add reviewer by providing the reviewers details to the fields provided and clicking on Add Reviewer button. If the mail already exists, it will show appropriate error message.

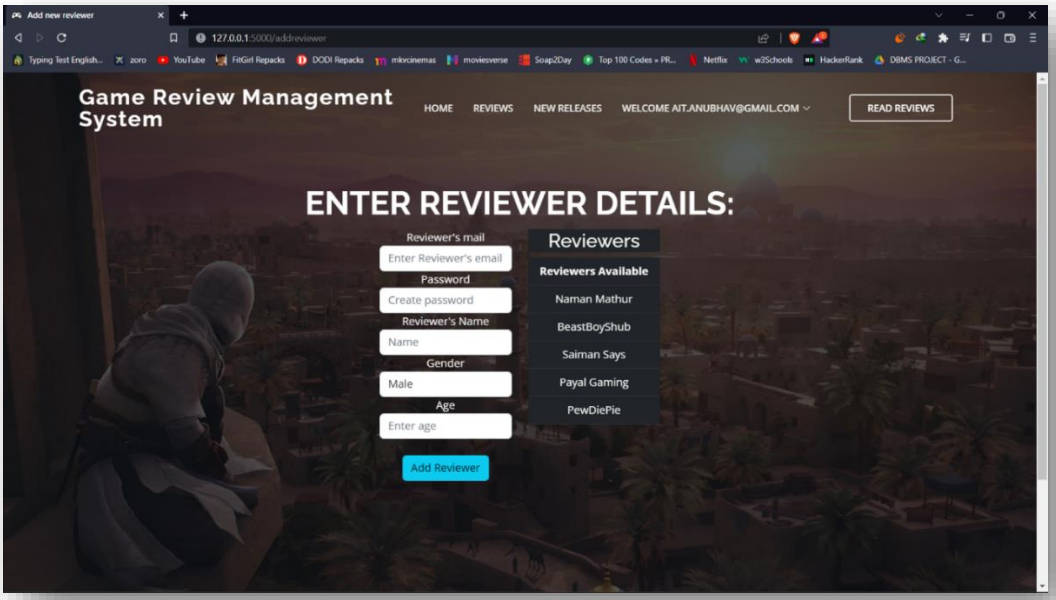

Fig-5.12

5.13 Latest Changes Page

Description: This page shows the latest changes made with respect to games done by the admins. This page doesn't require any authorization.

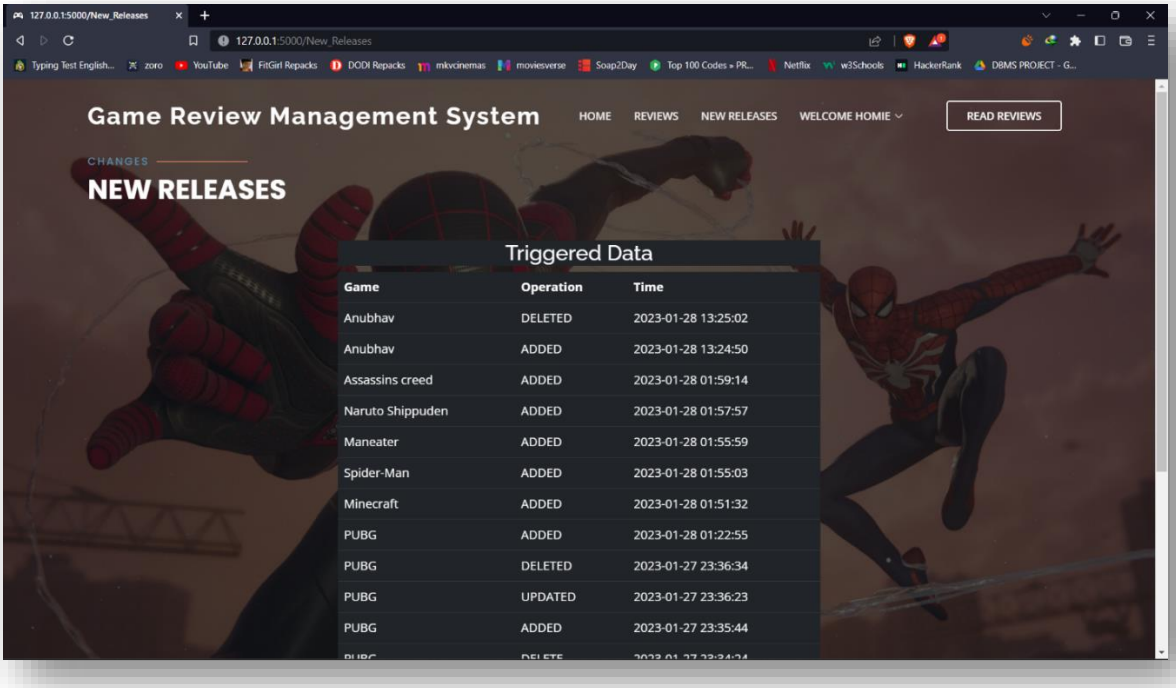

Fig-5.13

5.14 Player Signup Page

Description: This page can be accessed throws "create account" button on the Player Login page. A player can create an account by entering the data in the fields provided and clicking on Sign up button.

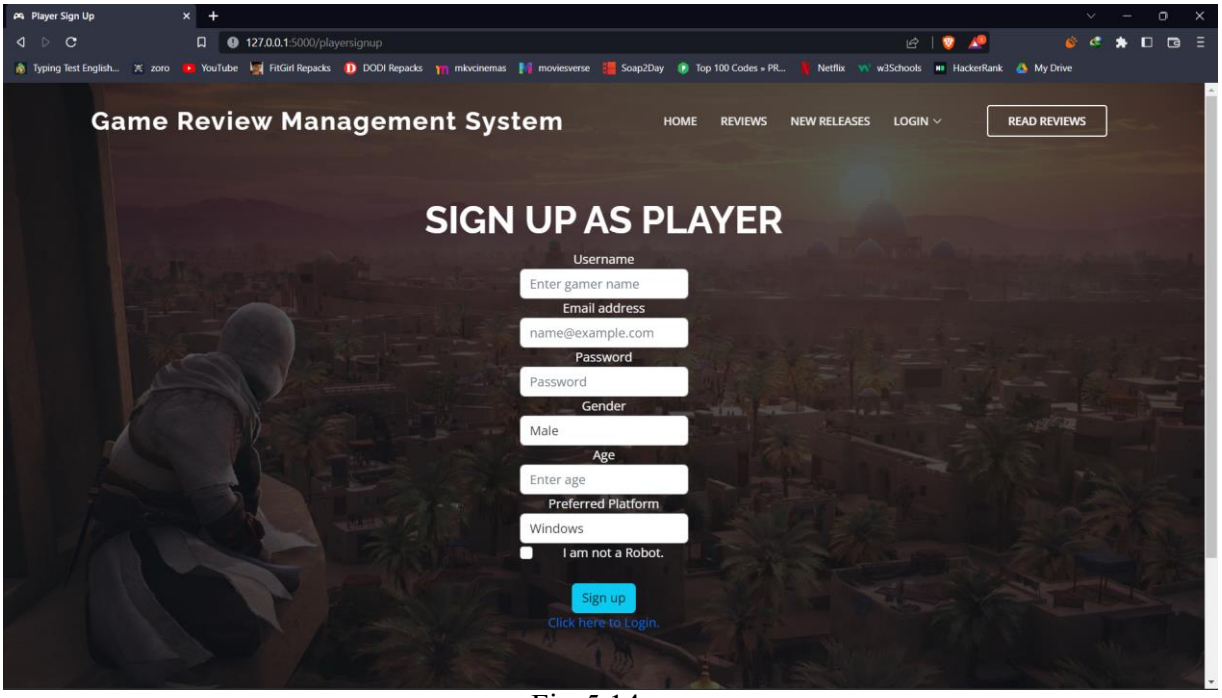

Fig-5.14

Chapter 6

Conclusion

Game Review Management System is a Customize and user-friendly software for Games. It has been designed to automate, manage and look after the overall processing of even very large Game Review website.

It is capable of managing Game details, Player Details, Reviewer Details etc. Game Review Management System is a Customize and user-friendly software for Game Review websites which provide game information, game publisher information, people's opinion information.

Game Review Management System is offering a maximum of stability, cost-effectiveness and usability. It provides the most flexible and adaptable standards management system software solutions for games.

Chapter 7

Bibliography

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[12] https://chat.openai.com/

[13] https://getbootstrap.com/