



American International University-Bangladesh  
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING  
Dhaka, Bangladesh

**00892 ADVANCE DATABASE MANAGEMENT SYSTEM**  
PROJECT Report  
[B][SUMMER 22-23]

## E-Sports Management System

Submitted by

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# Contribution

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Diagram	10%	10%	0%	0%	20(%)
UI Design	50%	0%	0%	0%	50(%)
Normalization	0%	70%	0%	0%	70(%)
SQL Query	0%	0%	0%	0%	0(%)
Relational Algebra	0%	0%	0%	0%	0(%)
Report Writing	30%	0%	0%	0%	30(%)

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# Introduction

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## 1.1 Project Proposal

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### 1.1.1 What is eSports?

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### 1.1.2 What is the problem?

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### 1.1.3 What is the solution?

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## 1.2 Project Scenario

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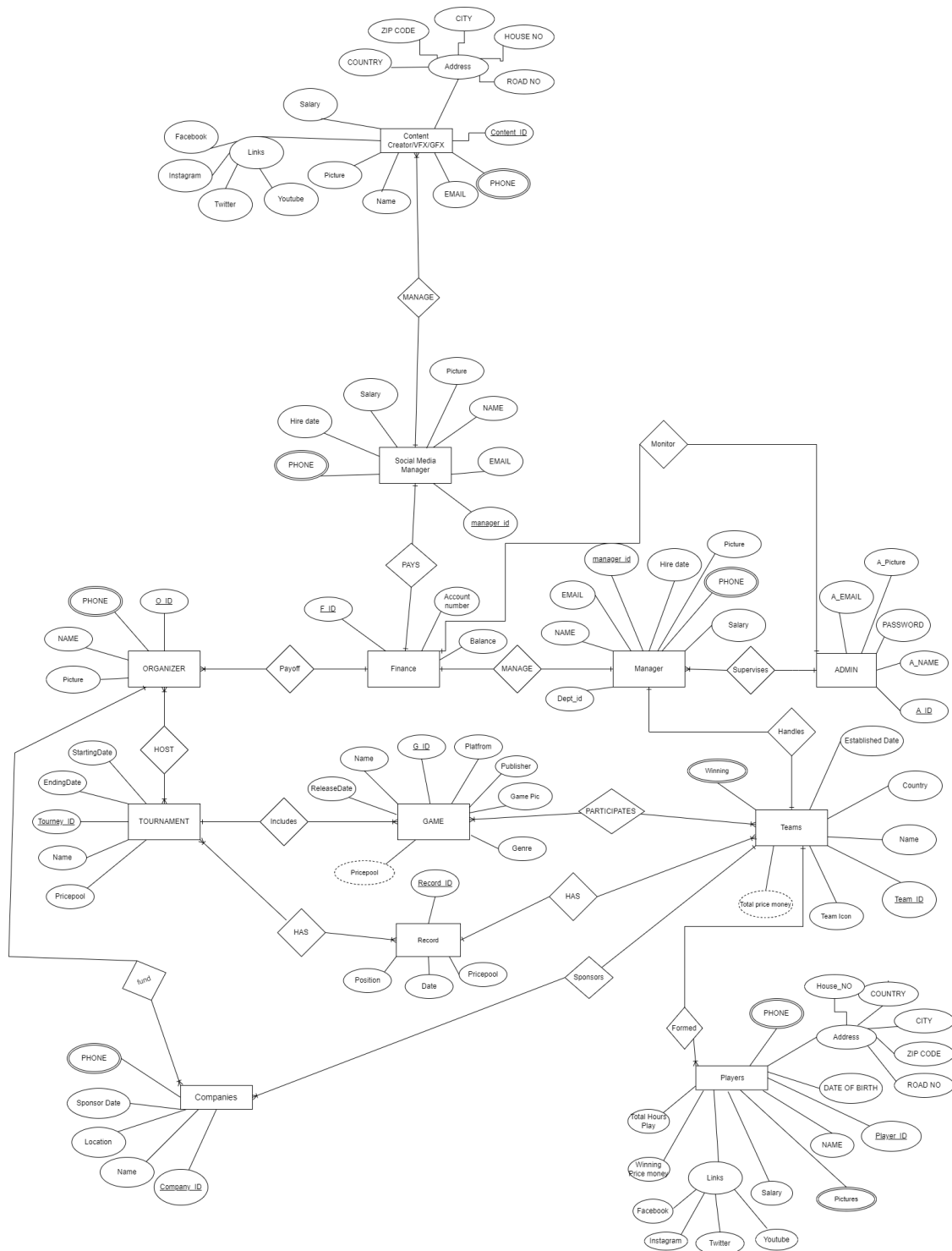
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# Diagrams

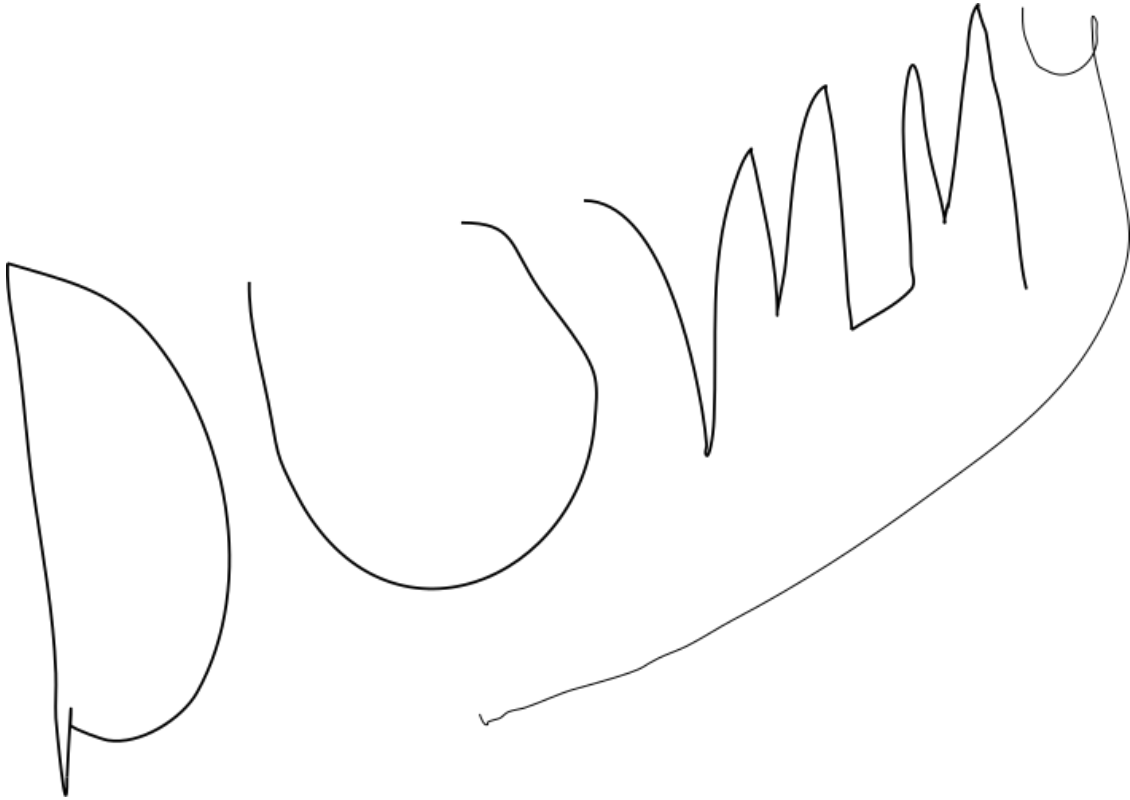
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## 2.1 ER Diagram



ER Diagram

## 2.2 Class Diagram



Class Diagram

## 2.3 Use Case Diagram



Use Case Diagram



## 2.4 Activity Diagram



Activity Diagram

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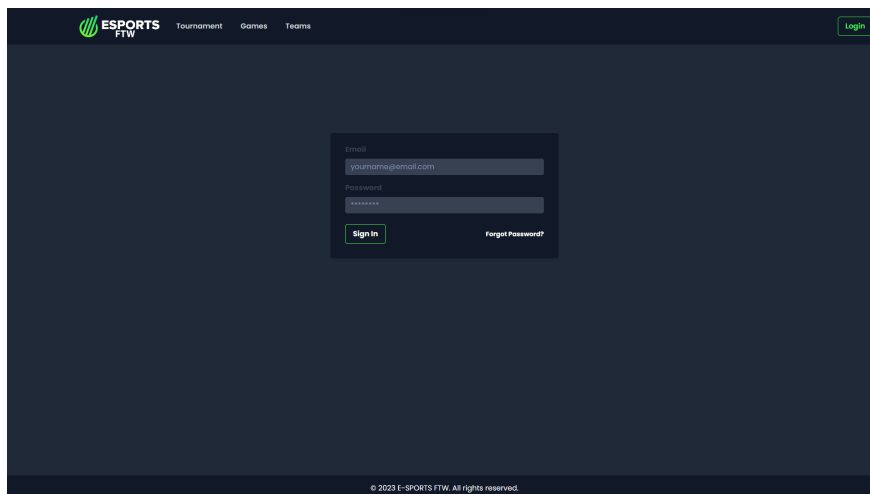
# User Interface

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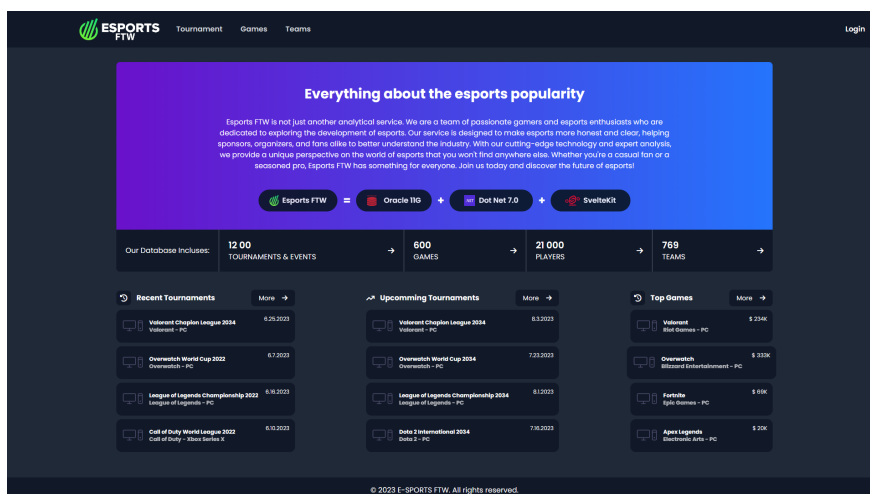
## 3.1 Technologies Used

- SvelteKit
  - Tailwind CSS
- 

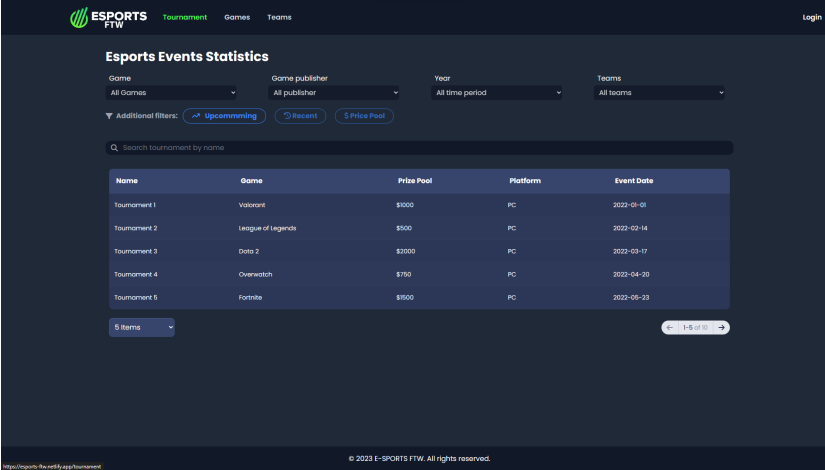
### 3.1.1 Login Page



### 3.1.2 Home Page



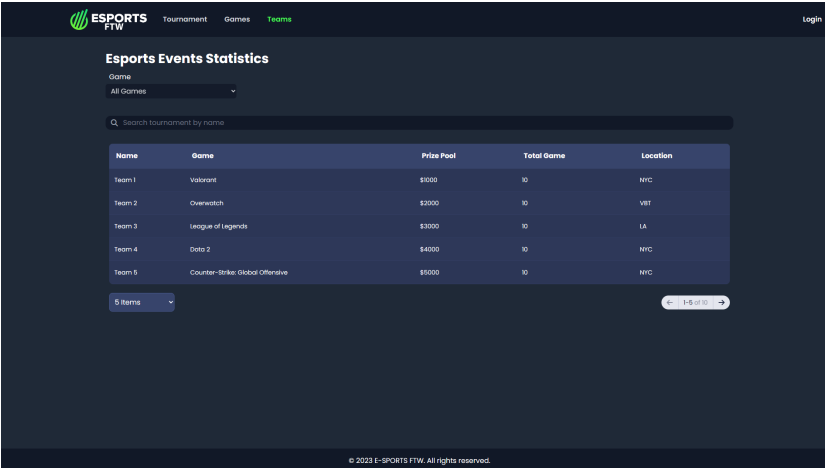
### 3.1.3 Tournament Page



The screenshot shows the 'Esports Events Statistics' page. It features a navigation bar with 'ESPORTS FTW', 'Tournament', 'Games', and 'Teams'. Below the navigation bar, there are filters for 'Game', 'Game publisher', 'Year', and 'Teams'. A search bar is present with the text 'Search tournament by name'. The main table lists tournaments with columns: Name, Game, Prize Pool, Platform, and Event Date. The table shows 5 items, with a pagination control at the bottom right.

Name	Game	Prize Pool	Platform	Event Date
Tournament 1	Valorant	\$1000	PC	2022-01-01
Tournament 2	League of Legends	\$500	PC	2022-02-14
Tournament 3	Dota 2	\$2000	PC	2022-03-17
Tournament 4	Overwatch	\$750	PC	2022-04-20
Tournament 5	Fortnite	\$1500	PC	2022-05-23

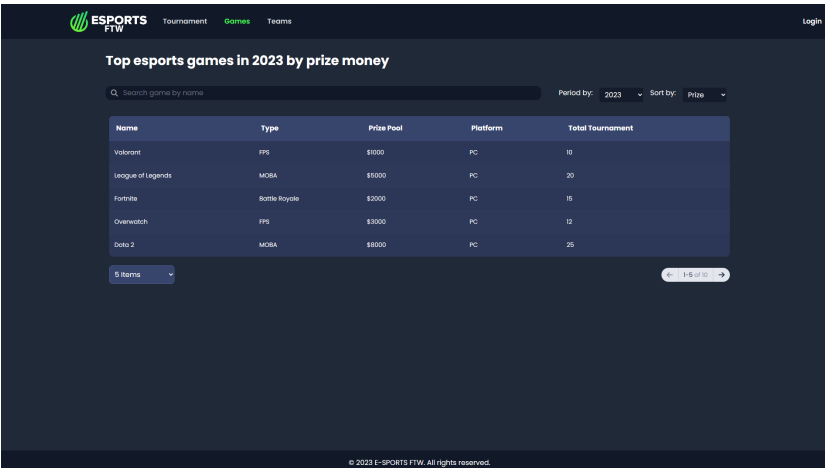
### 3.1.4 Team Page



The screenshot shows the 'Esports Events Statistics' page. It features a navigation bar with 'ESPORTS FTW', 'Tournament', 'Games', and 'Teams'. Below the navigation bar, there are filters for 'Game', 'Game publisher', 'Year', and 'Teams'. A search bar is present with the text 'Search tournament by name'. The main table lists teams with columns: Name, Game, Prize Pool, Total Game, and Location. The table shows 5 items, with a pagination control at the bottom right.

Name	Game	Prize Pool	Total Game	Location
Team 1	Valorant	\$1000	10	NYC
Team 2	Overwatch	\$2000	10	VBT
Team 3	League of Legends	\$3000	10	LA
Team 4	Dota 2	\$4000	10	NYC
Team 5	Counter-Strike: Global Offensive	\$5000	10	NYC

### 3.1.5 Game Page



The screenshot shows the 'Esports Events Statistics' page. It features a navigation bar with 'ESPORTS FTW', 'Tournament', 'Games', and 'Teams'. Below the navigation bar, there are filters for 'Game', 'Game publisher', 'Year', and 'Teams'. A search bar is present with the text 'Search game by name'. The main table lists games with columns: Name, Type, Prize Pool, Platform, and Total Tournament. The table shows 5 items, with a pagination control at the bottom right.

Name	Type	Prize Pool	Platform	Total Tournament
Valorant	FPS	\$1000	PC	10
League of Legends	MOBA	\$1000	PC	20
Fortnite	Battle Royale	\$2000	PC	15
Overwatch	FPS	\$3000	PC	12
Dota 2	MOBA	\$8000	PC	25

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# Normalization and Schema Design

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## 4.1 Normalization

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### 4.1.1 First Normal Form

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### 4.1.2 Second Normal Form

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Curabitur dictum gravida mauris.

### 4.1.3 Third Normal Form

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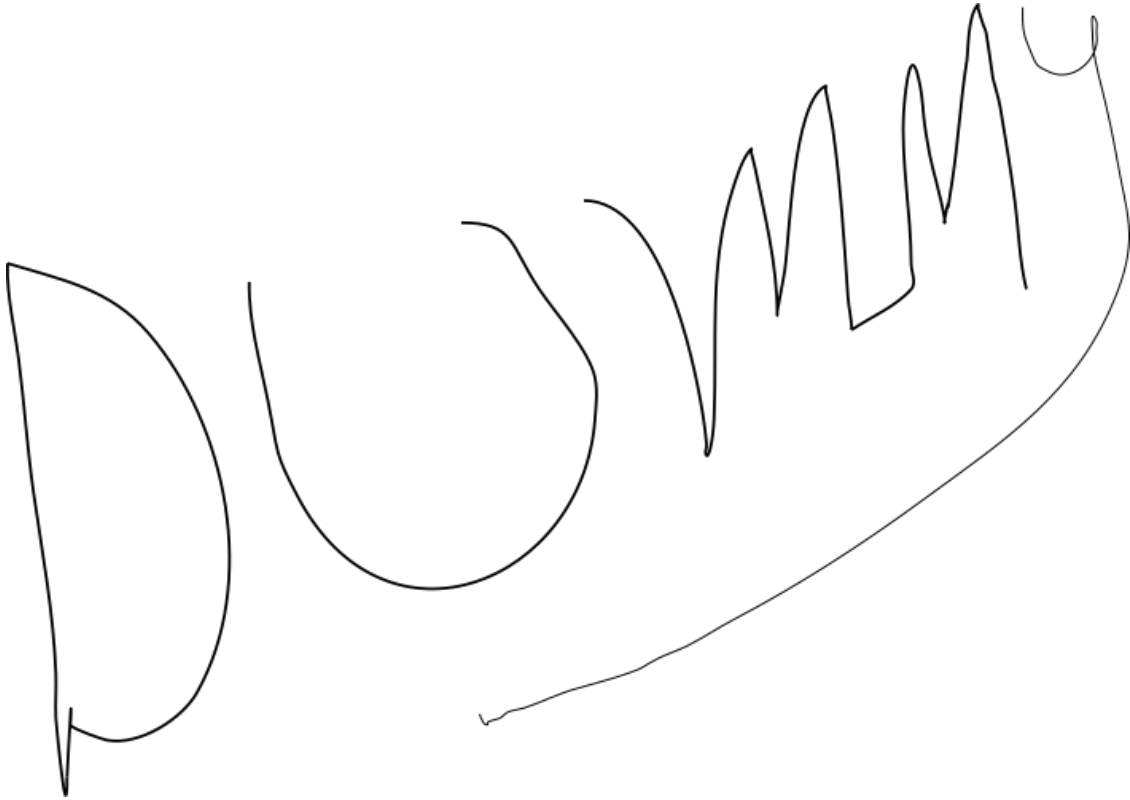
### 4.1.4 Final Table

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## 4.2 Schema Diagram



Schema Diagram

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# SQL Queries

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## 5.1 Sequence

```
1  -- A Sample query for Creating a Sequence
2  CREATE SEQUENCE sequence_name
3  START WITH 1000
4  INCREMENT BY 1
5  NOCACHE
6  NOCYCLE;
```

Sample Sequence

## 5.2 Table Creation

```
1  -- A Sample query for Creating a table
2  CREATE TABLE table_name (
3      column1 datatype,
4      column2 datatype,
5      column3 datatype,
6      ....
7  );
```

Sample one Table

## 5.3 Data Insertion

```
1  -- A Sample query for Inserting data into a table
2  INSERT INTO table_name (column1, column2, column3, ...)
3  VALUES (value1, value2, value3, ...);
```

Sample one Table

## 5.4 Data Selection

```
1  -- A Sample query for Selecting data from a table
2  SELECT column1, column2, ...
3  FROM table_name;
```

Sample one Table

## 5.5 Data Update

```
1  -- A Sample query for Updating data in a table
2  UPDATE table_name
3  SET column1 = value1, column2 = value2, ...
4  WHERE condition;
```

Sample one Table

## 5.6 Data Deletion

```
1  -- A Sample query for Deleting data from a table
2  DELETE FROM table_name WHERE condition;
```

Sample one Table

## 5.7 Functions and Joins

### 5.7.1 Single Row Functions

```
1  -- A Sample query for Single Row Functions
2  SELECT function_name(column_name)
3  FROM table_name;
```

Sample one Table

### 5.7.2 Group Functions

```
1  -- A Sample query for Group Functions
2  SELECT function_name(column_name)
3  FROM table_name
4  WHERE condition
5  GROUP BY column_name;
```

Sample one Table

### 5.7.3 Joins

```
1  -- A Sample query for Joins
2  SELECT table1.column1, table2.column2...
3  FROM table1, table2
4  WHERE table1.column_name = table2.column_name;
```

Sample one Table

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# Relational Algebra

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## 6.1 Selection

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# Conclusion

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