**SQL Queries with Views**

Create a view to display the names and categories of all books.

CREATE VIEW Book\_Names\_Categories AS

SELECT b.Title, c.Category\_Name

FROM Book\_Details b

JOIN Category\_Details c ON b.Category\_ID = c.Category\_ID;

2. Retrieve all records from the created view.

SELECT \* FROM Book\_Names\_Categories;

3. Create a view to list the names of all students along with their departments.

CREATE VIEW Student\_Departments AS

SELECT Name, Department

FROM Student\_Details;

4. Retrieve all records from the created view.

SELECT \* FROM Student\_Departments;

5.Create a view to display the names and nationalities of all authors.

CREATE VIEW Author\_Nationalities AS

SELECT Name, Nationality

FROM Author\_Details;

6. Retrieve all records from the created view.

SELECT \* FROM Author\_Nationalities;

7. Create a view to list the titles and publication years of all books published after 2010.

CREATE VIEW Recent\_Books AS

SELECT Title, Publication\_Year

FROM Book\_Details

WHERE Publication\_Year > 2010;

8. Retrieve all records from the created view.

SELECT \* FROM Recent\_Books;

9.Create a view to display the names of all publishers along with their locations

CREATE VIEW Publisher\_Locations AS

SELECT Name, Location

FROM Publisher\_Details;

10Retrieve all records from the created view.

SELECT \* FROM Publisher\_Locations;

**SQL Queries with Triggers**

Let's create a trigger that updates the current date when a book is borrowed:

CREATE TRIGGER UpdateBorrowDate

AFTER INSERT ON Borrower\_Details

FOR EACH ROW

BEGIN

UPDATE Borrower\_Details

SET Borrowed\_Date = CURDATE()

WHERE B\_ID = NEW.B\_ID;

END;

**Stored Procedure**

**1.Procedure to Insert a Book:**

CREATE PROCEDURE InsertBook(

IN p\_Title VARCHAR(255),

IN p\_PublicationYear INT,

IN p\_Language VARCHAR(255),

IN p\_CategoryID INT,

IN p\_NoOfCopiesActual INT,

IN p\_NoOfCopiesCurrent INT

)

BEGIN

INSERT INTO Book\_Details (Title, Publication\_Year, Language, Category\_ID, No\_Of\_Copies\_Actual, No\_Of\_Copies\_Current)

VALUES (p\_Title, p\_PublicationYear, p\_Language, p\_CategoryID, p\_NoOfCopiesActual, p\_NoOfCopiesCurrent);

END;

**2.Procedure to Update Book Title:**

CREATE PROCEDURE UpdateBookTitle(

IN p\_ISBN INT,

IN p\_NewTitle VARCHAR(255)

)

BEGIN

UPDATE Book\_Details

SET Title = p\_NewTitle

WHERE ISBN = p\_ISBN;

END;

**3.Procedure to Delete Book by ISBN:**

CREATE PROCEDURE DeleteBookByISBN(

IN p\_ISBN INT

)

BEGIN

DELETE FROM Book\_Details

WHERE ISBN = p\_ISBN;

END;

4.**Procedure to Get Total Number of Books in a Category:**

CREATE PROCEDURE GetTotalBooksInCategory(

IN p\_CategoryName VARCHAR(255),

OUT p\_TotalBooks INT

)

BEGIN

SELECT COUNT(\*) INTO p\_TotalBooks

FROM Book\_Details bd

JOIN Category\_Details cd ON bd.Category\_ID = cd.Category\_ID

WHERE cd.Category\_Name = p\_CategoryName;

END**;**

**5.Procedure to Get Book Details by ISBN:**

CREATE PROCEDURE GetBookDetailsByISBN(

IN p\_ISBN INT

)

BEGIN

SELECT \*

FROM Book\_Details

WHERE ISBN = p\_ISBN;

END;