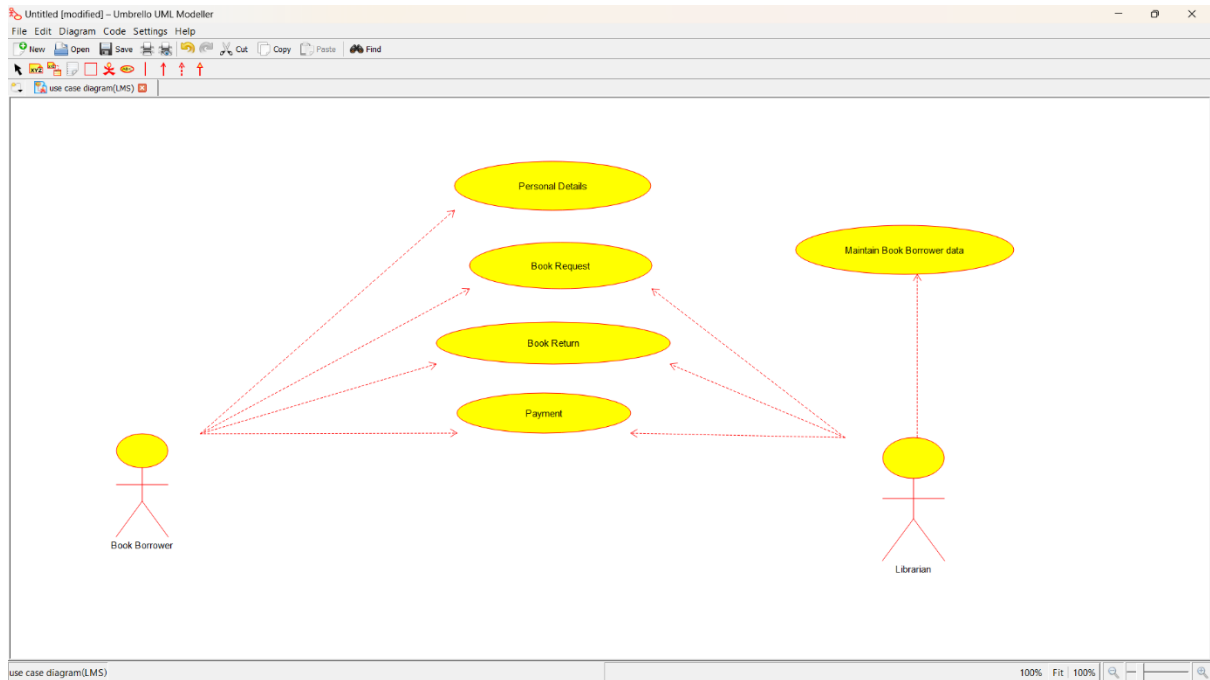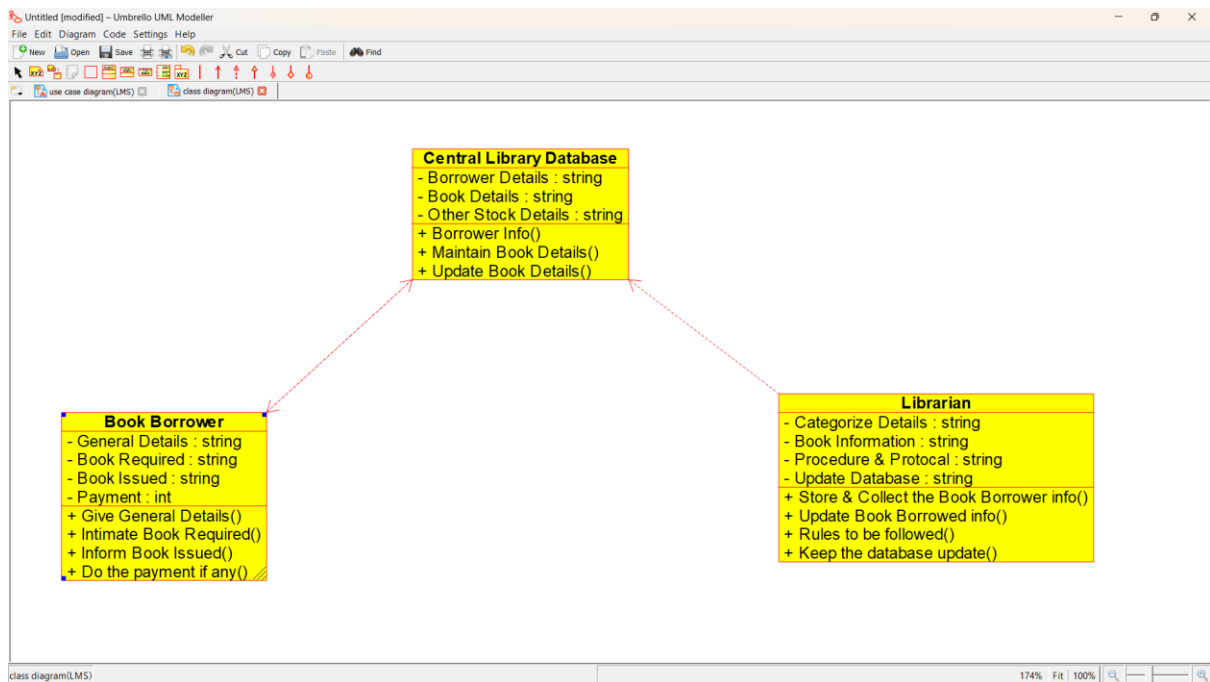# LIBRARY MANAGEMENT SYSTEM
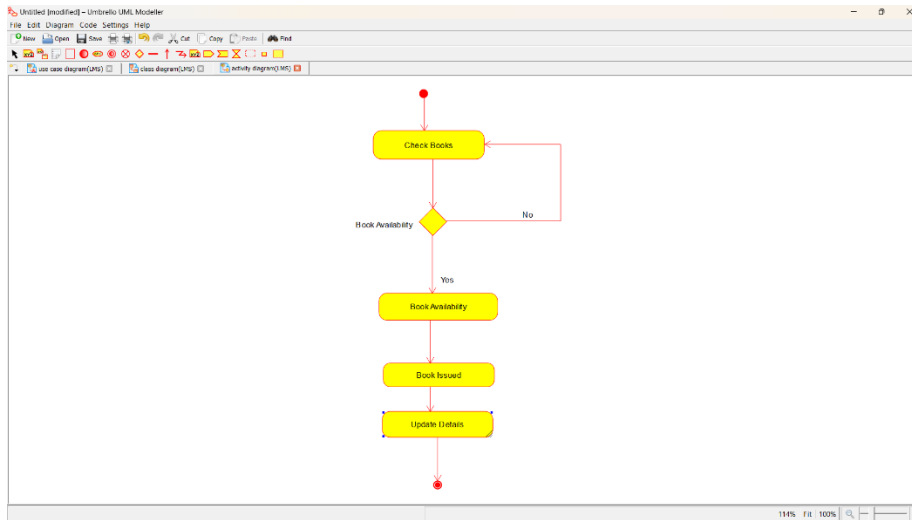
USE CASE DIAGRAM
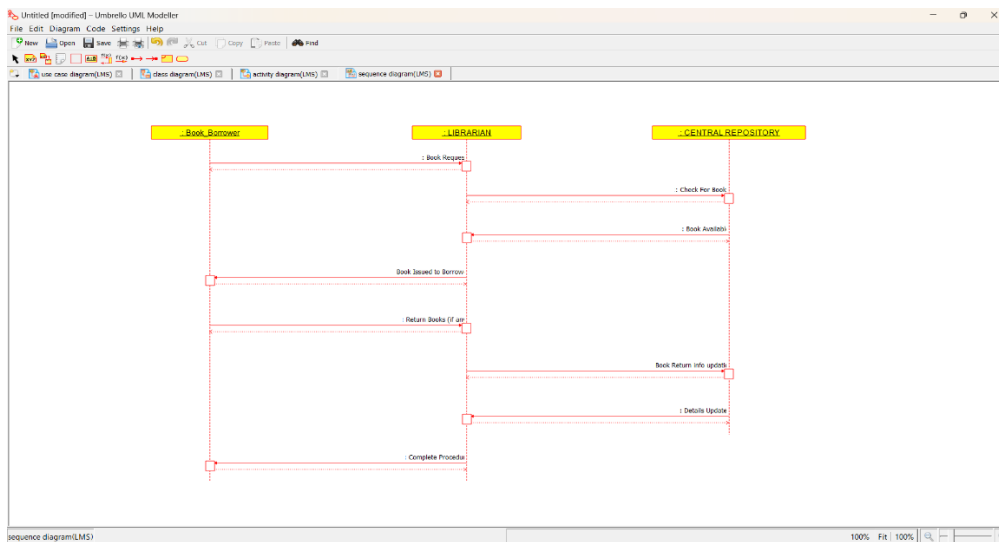

CLASS DIAGRAM:
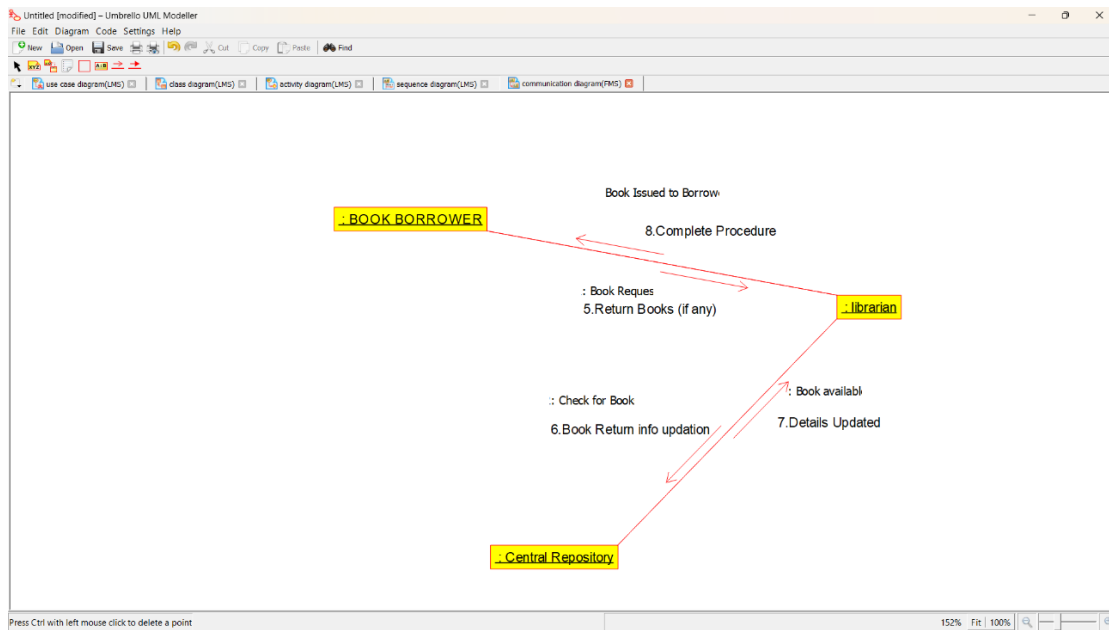
ACTIVITY DIAGRAM

SEQUENCE DIAGRAM

COLLABORATION DIAGRAM

Book Issued to Borrower

: BOOK BORROWER

8.Complete Procedure

: Book Reques
5.Return Books (if any)

: librarian

: Check for Book

6.Book Return info updation

: Book availabl
7.Details Updated

: Central Repository

Press Ctrl with left mouse click to delete a point   152%   Fit | 100%

STATE CHART DIAGRAM

Book Request/Return → Book Checked for Availability → Book Issued/Accepted → Check Limits → Notify Status

state diagram(FMS)   201%   Fit | 100%
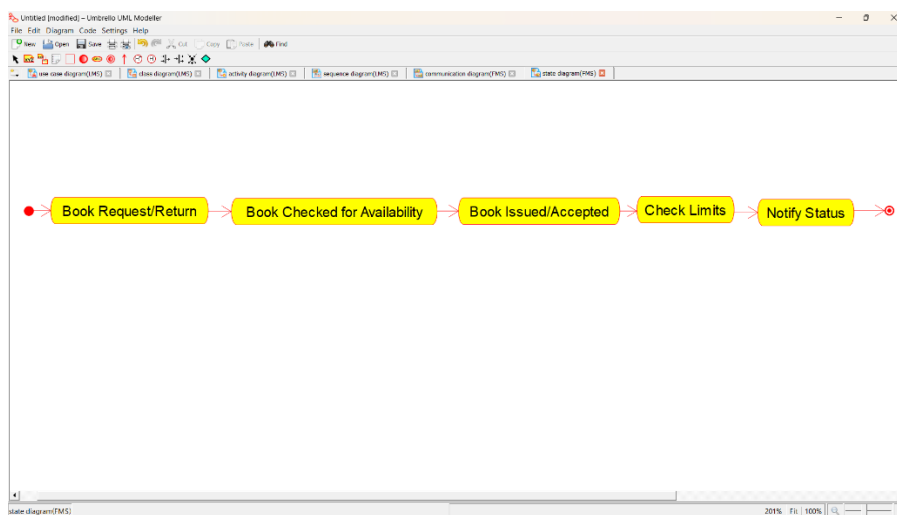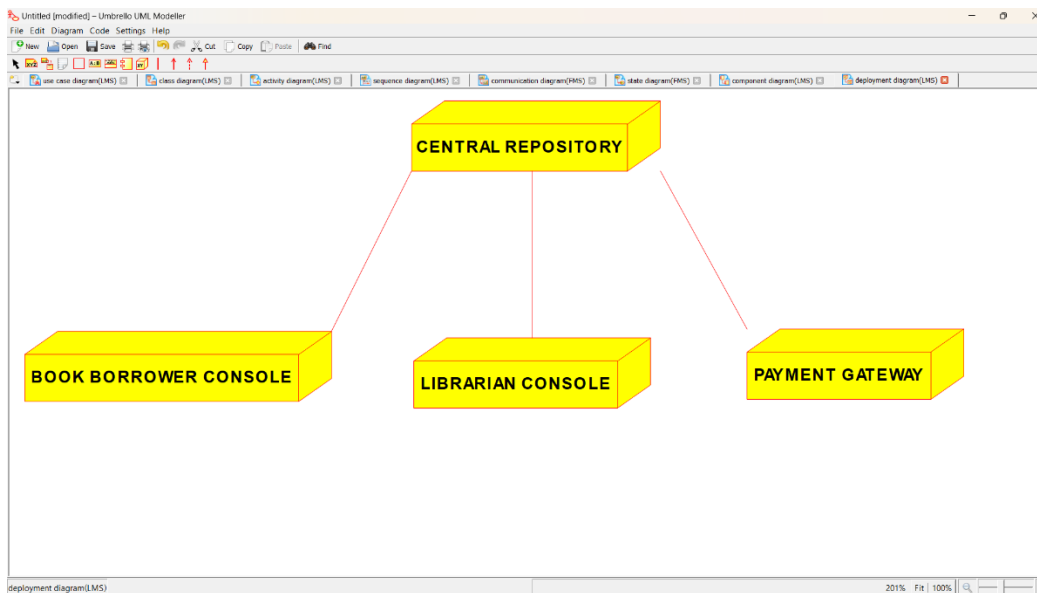
COMPOMEMT DIAGRAM
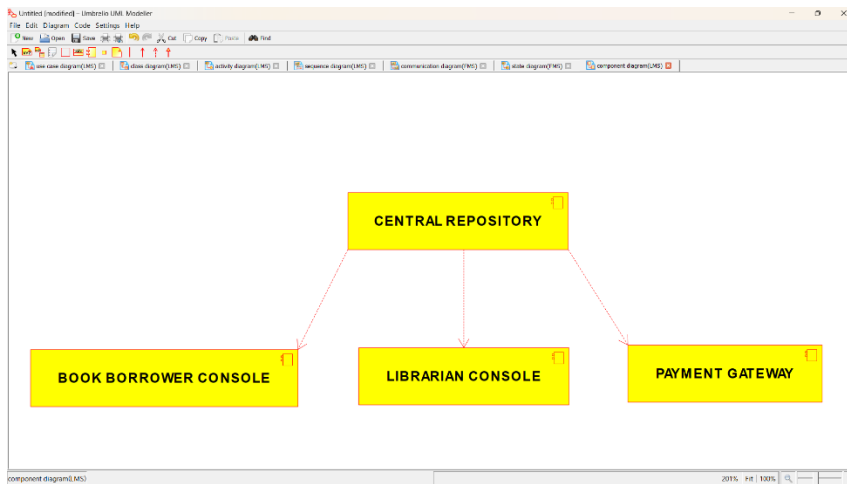
DEPLOYMENT DIAGRAM

PROGRAM CODING:

```
/**
 * Class Central_Library_Database
 */
public class Central_Library_Database {
  //
  // Fields
  //
  private String Borrower_Details;
  private String Book_Details;
  private String Other_Stock_Details;
  //
```

```java
// Constructors
//
public Central_Library_Database () { };
//
// Methods
//
//
// Accessor methods
//
/**
 * Set the value of Borrower_Details
 * @param newVar the new value of Borrower_Details
 */
private void setBorrower_Details (String newVar) {
  Borrower_Details = newVar;
}
/**
 * Get the value of Borrower_Details
 * @return the value of Borrower_Details
 */
private String getBorrower_Details () {
  return Borrower_Details;
}
/**
 * Set the value of Book_Details
 * @param newVar the new value of Book_Details
 */
private void setBook_Details (String newVar) {
  Book_Details = newVar;
}
/**
 * Get the value of Book_Details
 * @return the value of Book_Details
 */
private String getBook_Details () {
  return Book_Details;
}
/**
 * Set the value of Other_Stock_Details
 * @param newVar the new value of Other_Stock_Details
 */
private void setOther_Stock_Details (String newVar) {
  Other_Stock_Details = newVar;
```

```java
  }
  /**
   * Get the value of Other_Stock_Details
   * @return the value of Other_Stock_Details
   */
  private String getOther_Stock_Details () {
    return Other_Stock_Details;
  }
  //
  // Other methods
  //
  /**
   */
  public void Borrower_Info()
  {
  }
  /**
   */
  public void Maintain_Book_Details()
  {
  }
  /**
   */
  public void Update_Book_Details()
  {
  }
}
/**
 * Class Book_Borrower
 */
public class Book_Borrower {
  //
  // Fields
  //
  private String General_Details;
  private String Book_Required;
  private String Book_Issued;
  private int Payment;
  //
  // Constructors
  //
  public Book_Borrower () { };
  //
```

```java
// Methods
//
//
// Accessor methods
//
/**
 * Set the value of General_Details
 * @param newVar the new value of General_Details
 */
private void setGeneral_Details (String newVar) {
  General_Details = newVar;
}
/**
 * Get the value of General_Details
 * @return the value of General_Details
 */
private String getGeneral_Details () {
  return General_Details;
}
/**
 * Set the value of Book_Required
 * @param newVar the new value of Book_Required
 */
private void setBook_Required (String newVar) {
  Book_Required = newVar;
}
/**
 * Get the value of Book_Required
 * @return the value of Book_Required
 */
private String getBook_Required () {
  return Book_Required;
}
/**
 * Set the value of Book_Issued
 * @param newVar the new value of Book_Issued
 */
private void setBook_Issued (String newVar) {
  Book_Issued = newVar;
}
/**
 * Get the value of Book_Issued
 * @return the value of Book_Issued
```

```java
   */
  private String getBook_Issued () {
    return Book_Issued;
  }
  /**
   * Set the value of Payment
   * @param newVar the new value of Payment
   */
  private void setPayment (int newVar) {
    Payment = newVar;
  }
  /**
   * Get the value of Payment
   * @return the value of Payment
   */
  private int getPayment () {
    return Payment;
  }
  //
  // Other methods
  //
  /**
   */
  public void Give_General_Details()
  {
  }
  /**
   */
  public void Intimate_Book_Required()
  {
  }
  /**
   */
  public void Inform_Book_Issued()
  {
  }
  /**
   */
  public void Do_the_payment_if_any()
  {
  }
}
/**
```

```java
 * Class Librarian
 */
public class Librarian {
 //
 // Fields
 //
 private String Categorize_Details;
 private String Book_Information;
 private String Procedure_Protocal;
 private String Update_Database;
 //
 // Constructors
 //
 public Librarian () { };
 //
 // Methods
 //
 //
 // Accessor methods
 //
 /**
  * Set the value of Categorize_Details
  * @param newVar the new value of Categorize_Details
  */
 private void setCategorize_Details (String newVar) {
  Categorize_Details = newVar;
 }
 /**
  * Get the value of Categorize_Details
  * @return the value of Categorize_Details
  */
 private String getCategorize_Details () {
  return Categorize_Details;
 }
 /**
  * Set the value of Book_Information
  * @param newVar the new value of Book_Information
  */
 private void setBook_Information (String newVar) {
  Book_Information = newVar;
 }
 /**
  * Get the value of Book_Information
```

```java
 * @return the value of Book_Information
 */
private String getBook_Information () {
  return Book_Information;
}
/**
 * Set the value of Procedure_Protocal
 * @param newVar the new value of Procedure_Protocal
 */
private void setProcedure_Protocal (String newVar) {
  Procedure_Protocal = newVar;
}
/**
 * Get the value of Procedure_Protocal
 * @return the value of Procedure_Protocal
 */
private String getProcedure_Protocal () {
  return Procedure_Protocal;
}
/**
 * Set the value of Update_Database
 * @param newVar the new value of Update_Database
 */
private void setUpdate_Database (String newVar) {
  Update_Database = newVar;
}
/**
 * Get the value of Update_Database
 * @return the value of Update_Database
 */
private String getUpdate_Database () {
  return Update_Database;
}
//
// Other methods
//
/**
 */
public void Store_Collect_the_Book_Borrower_info()
{
}
/**
 */
```

```java
public void Update_Book_Borrowed_info()
{
}
/**
 */
public void Rules_to_be_followed()
{
}
/**
 */
public void Keep_the_database_update()
{
}
}
```