

The Project Code Documentation :

Environment:

Java (tested on JDK8u45) required for running the program. No additional libraries required except for the built-in ones.

MySQL (MariaDB) required for the Database. Change name and pass variables in DBManager.java to your username and password of MariaDB.

How to run the code :

Please download the code that consists of the following files :

- 1) Main.java
- 2) DBManager.java
- 3) backup.sql

Compiling the code :

The code can be compile by running the following commands :

- 1) javac Main.java
- 2) javac DBManager.java

(Optional) Loading demo data:

If you want to run the program from scratch, skip this. If you want to load all the tables and records for the demo data, run the following:

```
mysql -h hostname -u <unityid> -p <unityid> < backup.sql
```

hostname = classdb2.csc.ncsu.edu for remote ncsu eos server

Running the code :

Run the code by running command "java Main" .On running this command you will enter the main function of the program and will be displayed:

```
Welcome to WolfDB! Log in to your account.
```

Once this is displayed you will be prompted to enter the Username and password (We notice there are 5 types of users in the system, 1.Editor , 2.Author , 3.Publication Manager , 4.Distribution Manager, 5.Admin)

```
Enter Username:
```

Enter Password:

You will be logged into the system as one of the users.

The following are username and passwords for demo users for each userType. Additional users can be added via the Manage Personnel task.

UserType	Username	Password
Admin	admin	admin
Publication Manager	pub	pub
Distribution Manager	dist	dist
Editor	editor	editor
Author	author	author

After successful login you will be logged in successfully and will be displayed the usertype from the 5 options mentioned above. The options entered for the usertype will be matched to the respective user type based on the **switch case statements**.

Based on your user type you will be displayed the following options :

For "Admin" you will be displayed the following options :

Determine what you want to do:

- 1) Editing and Publishing
- 2) Production
- 3) Distribution
- 4) Report
- 5) Manage Personnel

For "PublicationManager" you will be displayed the following options :

Determine what you want to do:

- 1) Editing and Publishing
- 2) Production

For "DistributionManager" you will be taken to the distribution() function since that is the only option that can be performed by the distribution manager.

For "Editor" you will be displayed the following options :

Determine what you want to do:

- 1) Editing and Publishing
- 2) Production

For "Author" you will be displayed the following options :

Determine what you want to do:

- 1) Editing and Publishing
- 2) Production

The options chosen above will again run into a switch case statement which will select one of the following functions :

- 1) Editing and Publishing - editingAndPublishing()
- 2) Production - production()
- 3) Distribution - distribution()
- 4) Report - reports()
- 5) Manage Personnel - personnel()

If the **Editing and Publishing** function is chosen you will be prompted the following options again following a switch case operation of code :

Determine what Editing and Publishing activity you want to perform :

1. Add Publication

If this option was chosen we will have the option to enter one of these :

What type of publication do you want to enter? Choose 1.Book 2.Magazine
3.Journal

Based on the option chosen we can either choose to enter the book publication details which will include entering the publication id, title and topic or enter a magazine publication which will include entering the publication id,title and periodicity or a journal publication which will include

entering the publication id,title and periodicity. [Please note not null fields will have to be entered while the null fields will be given an optional entry to be entered]

2. Update Publication

Choosing this option will give you prompt you to enter the publication id of the publication : Based on the publication id it will be chosen if we are editing the book,journal or magazine publication.

For book publication we can edit the title or topic, for magazine publication we can edit the title of periodicity, for journal publication we can edit the title and periodicity.

3. Delete Publication

Choosing this option will give an option to enter the publication id to delete.

4. Add Article

Choosing this option will allow you to enter the article id ,title, topic, data and text for the article needed. Please note not null fields will have to be entered while the null fields will be given an optional entry to be entered].

5. Update Article

Choosing this option will allow the user to enter the article id and if the article id exists the user can update the fields of article like title, topic, data and text

6. Delete Article

Choosing this option will allow the user to delete the article whose article id is entered.

7. Add Chapter

Choosing this option will allow you to enter the chapter id ,title, data and text for the chapter needed. Please note not null fields will have to be entered while the null fields will be given an optional entry to be entered].

8. Update Chapter

Choosing this option will allow the user to enter the chapter id and if the chapter id exists the user can update the fields of chapter like title, data and text

9. Delete Chapter

Choosing this option will allow the user to delete the chapter whose chapter id is entered.

10. Add editor to publication

Choosing this option will ask for the editor id and the publication id to enter, which will allow the editor to be assigned to the publication.

11. Delete editor from publication

Choosing this option will ask for the editor id and the publication id to enter, which will allow the editor to be deleted to the publication.

12. View assigned publication

Choosing this option will allow the user to enter the editor id that will display all the publication id's the editor is assigned to.

13. View tableofcontent - issue of magazine or journal for a publication.

Choosing this option will allows the user to enter the publication id which would display the table of contents of the publication.

14. View tableofcontent - edition of book for a publication

Choosing this option will allow the user to enter the publication id which would display the table of contents of the publication.

15. Update tableofcontent - issue of magazine or journal for a publication

Choosing this option will allow the user to enter the publication id which would update the table of contents of the publication using two options 1.manually 2.automatically. Manual option will ask the user to enter the table of content details, while the automatic version allows the table of content to be build based on the articles assigned to the issue of the publication.

16. Update tableofcontent - edition of book for a publication

Choosing this option will allow the user to enter the publication id which would update the table of contents of the publication using two options 1.manually 2.automatically. Manual option will ask the user to enter the table of content details, while the automatic version allows the table of content to be build based on the chapters assigned to the edition of the publication.

17. Search Database

This option allows the user to view the contents of the database.

If the **Production function** is chosen you will be prompted the following options again following a switch case operation of code :

Determine what Production activity you want to perform:

1. Add a new Edition in DB

You will be prompted to add the edition id, publication id, date and isbn number of the publication to add. [Please note not null fields will have to be entered while the null fields will be given an optional entry to be entered]

2. Update Edition of a Book in DB

You will be prompted to enter the publication id, edition id to identify the Edition. After which you can edit the edition id, isbn number, date and table of contents.

3. Delete an Edition from DB

You will be prompted to enter the publication id and edition id which will help identify the edition. After which you can delete the edition.

4. Add a new Chapter to an Edition in DB

You will be prompted to enter chapter id, chapter number , date, title, text and the publication id and edition id to link it with.

5. Update a Chapter in DB

You will be prompted to enter article id, You can edit the title date and text once the article is found.

6. Add (Append) Text to a Chapter in DB

This option allows you to append text to the existing text of a Chapter.

7. Update Text of a Chapter in DB

This option allows you to enter the chapter id based on which we can update the text of the chapter.

8. Delete a Chapter from DB

You will be prompted to enter article id, You can delete the chapter from the database.

9. Assign Author to edition

This activity will assign an edition to author based on the author id and edition iid

10. Find Books by Topic in DB

You will be prompted to enter the topic to search for. The search results will return all books of that topic.

11. Find Books by Date in DB

You will be prompted to enter the start and end dates to search for. The search results will return all books of the range.

12. Find Books by Author Name in DB

You will be prompted to enter the author name to search for. The search results will return all books of that author name.

13. Add a new Issue in DB

You will be prompted to enter the publication id, issue id, isbn number and the date.[Please note not null fields will have to be entered while the null fields will be given an optional entry to be entered]

14. Update an Issue in DB

You will be prompted to enter the publication id and issue id which will help identify the issue. After which you can edit the date and table of contents.

15. Delete an Issue from DB"

You will be prompted to enter the publication id and issue id which will help identify the issue. After which you can delete the issue.

16. Add new Article to an Issue in DB"

You will be prompted to enter article id, number , topic , date, title, text and the publication id and issue id to link it with.

17. Update an Article in DB

You will be prompted to enter article id, You can edit the topic title date and text once article is found.

18. Add (append)Text to an Article in DB

This option allows you to add text to the existing text of an article in the DB.

19. Update Text to an Article in DB

This option allows you to enter the article id based on which we can update the text of the article.

20. Delete an Article from DB

You will be prompted to enter article id, You can delete the article from the database.

21. Assign Author to article

This activity will assign an article to author based on the author id and article id

22. Find Articles by Topic in DB

You will be prompted to enter the topic to search for. The search results will return all articles of that topic.

23. Find Articles by Date in DB

You will be prompted to enter the start and end dates to search for. The search results will return all articles of the range.

24. Find Articles by Author Name in DB

You will be prompted to enter the author name to search for. The search results will return all articles of that author name.

25. Enter Payment Info in DB

You will be prompted to enter the payment id, generated date, amount and staff id associated with the payment.

26. Find Payment by Pay ID in DB

You will be prompted to enter the payment id to search for. The search results will return the payment associated with the payid and the staff or orders and distributors information associated with the payment.

27. Find Payment by Claimed Status in DB

You will be prompted to enter the claimed status to search for. 1. For Null and 2. not Null. The search results will return the payment associated with the payid and the staff or orders and distributors information associated with the payment.

If the **Distribution** function is chosen you will be prompted the following options again following a switch case operation of code :

Determine what Distribution activity you want to perform:

1. Enter New Distributor Info to DB

You will be prompted to enter the distributor id, name, contact person , address, city, phone number and outstanding balance amount.

2. Update Distributor Info in DB

You will be prompted to enter the distributor id which will allow you to update the files of name, contact person , address, city, phone number and outstanding balance amount.

3. Delete a Distributor from DB

You will be prompted to enter the distributor id which will allow you to delete the distributor of that id.

4. Enter Distributor and Order Info for an Issue of Journal or Magazine for a certain date

It will prompt for publication id and issue id, it will prompt for the rest of the order information, upon entering which we can insert an order for that issue of journal or magazine for that date.

5. Enter Distributor and Order Info for an Edition of Book for a certain date

It will prompt for publication id and edition id, it will prompt for the rest of the order information, upon entering which we can insert an order for that issue of book for that date.

6. Generate Bill for a Distributor for a particular order

Entering the distributor id and ordering it, it will generate the bill for that order.

7. Change outstanding balance of a distributor on receipt of a payment

This code will change the outstanding balance of a distributor when a payment is received.

8. View Bills Associated to a Distributor or Order

This will allow us to view the bill associated with distributore or order

9. View Payments Associated to a Distributor or Order

This will allow us to view the payment associated with distributore or order

10. Search for a distributor

This will enable us to search for the distributor table,.

If the **Report** function is chosen you will be prompted the following options again following a switch case operation of code :

Please select the kind of report you would like to generate

1. Monthly report for number of copies and total price of copies per publication per distributor

This option will generate a report based on number of copies and total price of copies per publication per distributor

2. Monthly report on total revenue of the publication house.

This option will generate a report based total revenue of the publication house.

3. Monthly report of total shipping cost.

This option will generate a report based total shipping cost.

4. Monthly report of total salary expenses.

This option will generate a report based on total salary expenses.

5. Monthly report of total expenses for the publication house.

This option will generate a report based on total expenses for the publication house.

6. The total current number of distributors.

This option will generate a report based on total current number of distributors.

7. The report of total revenue since inception per city.

This option will generate a report based on total revenue since inception per city.

8. The report of total revenue since inception per distributor

This option will generate a report based on total revenue since inception per distributor

9. The report of total revenue since inception per location

This option will generate a report based on total revenue since inception per location

10. The report of total payment to editors per time period

This option will generate a report based on total payment to editors per time period

11. The report of total payment to author's per time period

This option will generate a report based on total payment to author's per time period

12. The report of total payment to editors and authors for work type

This option will generate a report based on total payment to editors and authors for work type

13. Monthly report of total payment to editors and authors for work type

This option will generate a report based on total payment to editors and authors for work type

14. Exit reports

If the **Personnel** function is chosen you will be prompted the following options again following a switch case operation of code :

1. Enter New Staff in DB

Will prompt you to add the staffs name, email, phone, address, username and password and join date to add to the database.

2. Update Staff Information

Upon entering the staff id, can edit the staff information like name, email, phone, address, username and password and join date to add to the database.

3. Delete a Staff from DB

Can delete a staff if entered the staff id

4. Search for a Staff

Can search the staff table based on staff id.