Nineveh application
-user manual-

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1. About Nineveh

Nineveh application was made by Miloš Marković, as graduation project for JavaScript course, within IT prequalification training organized by the Government of the Republic Serbia and Code by Comtrade.

Named after city that housed first library known to human history, Nineveh is software designed to facilitate library records management activities. Key features are:

- Handling database records:

    - employee records, including: add, edit, or remove employee accounts;

    - book collection records, including: add, edit, or remove books to/from collection;

    - membership records, including: add, edit, or remove member accounts;

- Member-books interaction, including lending and returning books to/from members;

For more information on setting up, and using application, further consult user manual.

2. Setup configuration

Before deploying Nineveh application to server, two step configuration is required for application to work properly:

- configure database uri and default administrator accounts
- transpile .ts files to .js files

2.1 Configuring db uri and admin account

Open file appconfig.json, whose content looks like:

```
{
    "db": {
        "uri": "YOUR_MONGODB_CONNECTION_STRING_ HERE",
        "dbName": "test"
    },
    "defaultAdmin": {
        "username": "admin",
        "password": "admin"
    }
}
```

Then to "db" object property "uri" insert your MongoDb (local or Atlas) connection string. This is crucial for application to function correctly. Under same object property "dbName" can be changed to custom database name. Object "defaultAdmin" contains information about default administrator account that is created on server deployment, and here can be changed.

2.2 Transpile .ts files

To transpile .ts files open terminal in root directory and type "tsc", then hit enter. When transpile is finished, terminal cursor will be visible again, and every .ts file should have .js counterpart. After that application is ready for server deployment.

3. Nineveh application public access

After deployment, Nineveh application will have public access part consisting of home, search, and login page. Homepage is envisioned as informational page, and it should contain description or information about your library.

Illustration 1: application Homepage

Search page serves as access terminal for public use. Through it library collection can be accessed and searched by public.

Illustration 2: Public Search books page

Login page enables employees to enter username and password, and after authorization takes them to their respective dashboard.

Illustration 3: Login page

4. Nineveh employees dashboard

After logging in employee is redirected to their respective dashboard. There is two different dashboard configurations, one for administrators, and one for librarians. Common parts for both dashboard configurations include:

- account settings: change password, turn on/off background animation, access user manual;

- books settings: add/edit/delete books from library collection;

- membership settings: add/edit/delete library members;

4.1 Common dashboard elements
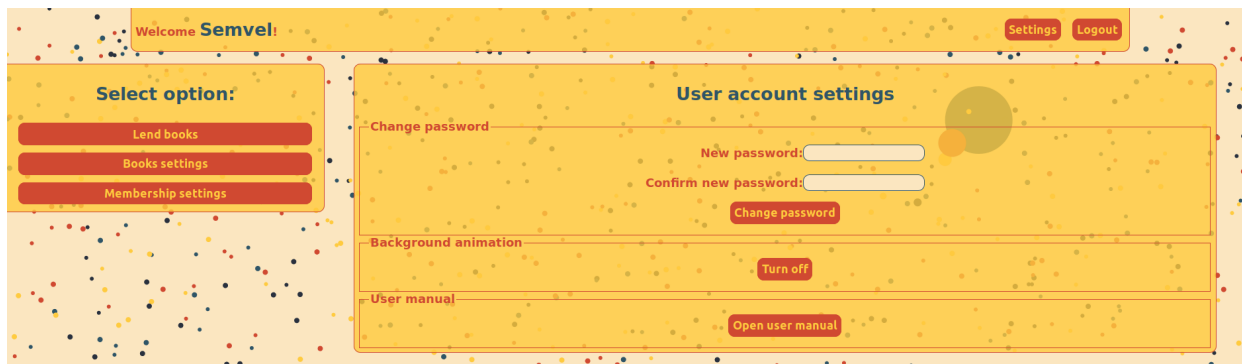
4.1.1 Account configuration

Illustration 4: Employee account configuration

Account configuration contains three sections.

Every employee can change her/his own password by entering new password and confirming it. Password is then validated on server, and changed if input is valid.
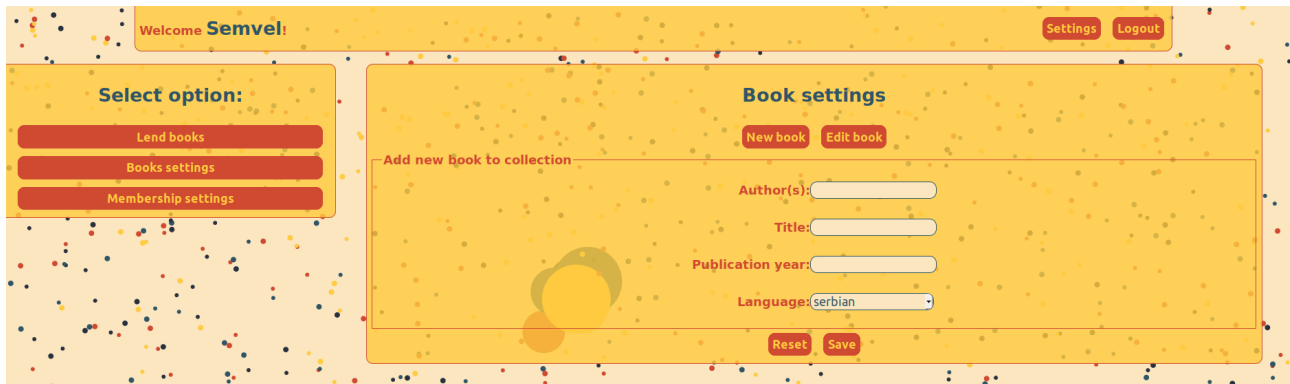
Background animation can be turned on/off by clicking on associated button.

User manual is available within application, and can be opened in new tab by clicking on the button.

4.1.2 Books settings

Book configuration contains two section new book and edit book.

New book can be added to library books collection by clicking on "New book", inserting book information and saving it. Book information are sent to server, where after validating input book is saved or rejected, about what employee will receive notification.

Illustration 5: New book input

To edit already existing book first find book you wish to edit. In search results click on desired book, and that will take you to edit book screen.

Illustration 6: Book edit search results

On update page book information can be updated by changing text in input fields. If you wish to delete book check delete box before sending data. Be aware than borrowed book can't be updated or deleted.

Illustration 7: Book edit/delete page

4.1.3 Membership settings

Membership settings include all options as book settings, but for library members. As per books, membership can't be edited or deleted if they have borrowed books.

4.2 Librarian dashboard elements

Lending books is element available only to librarian employees.

4.2.1 Lend books

Illustration 8: Lend books members search

To lend book to member you first need to find member in question. In result click on desired employee to open edit screen. Here you can search for books and by clicking on them, add to member file or remove them from it.

Illustration 9: Lend books member file

4.3 Administrator dashboard elements

Administrator have access to server log and employee settings.

4.2.1 Server activity log

Illustration 10: Server activity log

Application logs all employee activities, and administrators have access to it. By choosing "read activity log" option administrator can load full server activity log, and read it.

4.2.2. Employees settings

Employee settings include all options as book settings, but for employees. Administrator can change password for other employees, and delete their accounts. Only restrain is than administrator can't delete account that she/he currently use.

5. Application Input reference

5.1 Employee input

5.1.1 Username

Username input is combination of first three letters from employees name and surname, all lowercase. Example: tirlan (Tirion Lanister)

5.1.2 Password

Must start with letter, and end with letter or number. In between letters, numbers, dot(.), hyphen(-) and underscore(_) are allowed. Min. length 8 characters, max. length 20 characters. Example: red_wedding-299.AC

5.1.3 Name

Must start with upper case letter, and rest letters must be lower case. Min. length 2 characters, max. length 20 characters. Example: Melisandre

5.1.4 Surname

Same as name.

5.1.5 E-mail

Must start with lower case letter, followed by any number of letters, numbers or underscore(_), followed by @, followed by any number of letters or numbers, followed by dot(.), followed by five letters or numbers. Example: beyond_the-Wall@nigh7.king

5.2 Book input

5.2.1 Author

Author name consists of prefix, surname, name, and suffix. Prefix contains 2-3 letters, example: fon, Le, de. Surname and name follows same rules as employee surname and name, sections 5.1.3 and 5.1.4. Suffix is one upper case letter followed by dot(.). Book can have multiple authors. Input can be between one and five authors separated by comma(,), or one author followed by "et al." expression. Examples:

1. de Balzac Honore

2. Lavcraft Hauard P., Le Fanu Sheridan, Poe Edgar A.

3. Wachowski Andy et al.

5.2.2 Title

Must start with upper case or number, than can be followed by any combination of letters, numbers, dot(.), hyphen(-), comma(,), colon(:), or space. Example: 101 sci-fi movies you must see before you die

5.2.3 Publication year

Must be 4 characters long, all numbers. Example: 1985

5.3 Membership input

5.3.1 Name

Same as employee name, look up under 5.1.3

5.3.2 Surname

Same as employee surname, look up under 5.1.4

5.3.3 Address

Must start with upper case letter, followed by any combination of letters, numbers, dot(.), hyphen(-), comma(,), or space. Min. length 3 characters, max. length 60 characters.