MULTIPURPOSE PORTAL

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Abstract - Multipurpose portal *aims to provide easy access to college students to multiple essential portals. The application is divided into two portals- Student and Teacher. Since the COVID-19 outbreak, everything has become online and because of its incoercible increase overtime, the things aren't going to revert back to normal anytime sooner. Hence this application caters to the needs of the students and facilitates hassle free college life. This system helps students by providing features for some of the most basic needs in the first year like having notes of all the subject, all college referred internships at one place and also provides them with access to a platform where they can contact seniors for college stationery and lab coats.*

Key Words: **Java project, servlet, Internship, file upload, file download, file display, Mart**.

1.INTRODUCTION

While finding the solutions to various problems a student faces in first year of engineering, it is difficult for students to find files or notes in the file section of various apps and chatting groups, because they are often jumbled and scattered along with some screenshots of unnecessary questions or even other notices or circulars. Students are provided with internship mails through college which at times get redirected to the spam folder or remain unnoticed because one receives at least 10-11 mails a day from random subscribed companies or pages. It is often seen that students in first year find it cumbersome to get the essential college materials. Since, it is convenient and cheaper for them to buy the same from their seniors but it was difficult for First Year students to maintain contact with the seniors. The project is based on providing easy access to college students to multiple essential portals. Since the COVID-19 outbreak, everything has become online and because of its incoercible increase overtime, the things aren't going to revert back to normal anytime sooner. Hence this application caters to the needs of the students and facilitates hassle free online learning. So, this is a web application developed by the students for the students. The application is divided into two portals- Student and Teacher providing different kind of access for different people. Both the portal consists of a file section, internship portal, mart section.

The students can access all the class notes as well as soft copy of text books through the file section. The internship section provides access to have a look at all the college referred internships and even apply for the same. The "Mart" module of the application facilitates buying and selling of college resources such as text books and college supplies. Hence providing easy access to all essential portals at one single place just a click away!

2. LITERATURE SURVEY

There is no such system which provides all the features and modules that the application provides. Instead, there are other individual systems that provides similar features as the files section and the mart section. The existing system for files section is the **Microsoft Teams** where teacher provide the students with files, and **OLX (Online Exchange)** is similar to features provided by the mart section, but Microsoft Teams' files section often mixes the files, pdfs with some snapshots of questions, doubts asked by the students in the chat box, and also gives students the right to edit and delete the files uploaded by the respective subject teachers. Since our project focuses on various features that may help a student in his/her college life, there is no system that provides the student with all the features that we provide but there are separate platforms which provide separate features of our project, like Teams and OLX Microsoft Teams' files section often mixes the files, pdfs with some snapshots of questions, doubts asked by the students in the chat box, and also gives students the right to edit and delete the files uploaded by the respective subject teachers. OLX provides the user with good options for buying and selling their products, but it has no separate section or page which will show all the academic and educational items. It has been seen by a survey that reported that not even four percent of India's internet population is accessing such online classified portals for academic stuff

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3. ALGORITHM

Algorithm:

The following are the algorithm for the respective modules.

3.1 FILE SECTION:

3.1.1 FILE UPLOAD:

When a user with privilege of uploading the file uploads a certain file, Servlet fetches all the parameter from the multipart form using FilePart which is available in org.apache.commons.fileupload library. The file is stored into a database as a long blob file by taking the input stream. The users are asked to rename the file. The file extension of the uploaded file is extracted from the uploaded file path and is concatenated with the new name. The new name as well as the file path is stored into database.

3.1.2 FILE DISPLAY:

As soon as a user clicks on certain subject to view file, the servlet fetches the subject name. The subject name is then used to fetch all the files from the database stored in the respective subject tables.

3.1.3 FILE DOWNLOAD:

When a user clicks the Download file option, servlet fetches the file name, subject name, file number. These details are used to fetch the file from the database and download it into user's system by getting the binary stream from database and using outstream.

3.1.4 FILES DELETE:

When a user with privilege of deleting the file deletes a certain file, Servlet fetches all the details of that file and deletes each and every trace of that file from the database.

3.2 Internship section:

For the internship module, JAVAMail API is used to retrieve mails from the inbox. Using the search term method of the JAVA Mail, all the emails having keywords like internships, or training and similar words are extracted from the mail. Since, the fetched content contains html tags, parsing is done using JSOUP library. To extract the hyperlink from the content, JAVA Regular Expression is used. The subject, content and hyperlink is stored in the table using JDBC. The details are then retrieved and displayed in the collapsible columns.

3.3 Mart

3.3.1 Sell:

When a user uploads a product with all the necessary details specified, Servlet fetches all the parameters from the multipart form.

2. The product images added by the user is uploaded on the server.

3. The product details are stored in the database using JDBC along with the path of the product image.

3.3.2 ProductList:

When the user clicks on the BUY option, the Servlet corresponding to the URL-productList fetches all the products from the table.

2. The Servlet redirects to the JSP that displays the list of the products. JSP is used because of the dynamic nature of the page.

3. Each product card on the page comprises of a form of doPost type with the product name as the submit button.
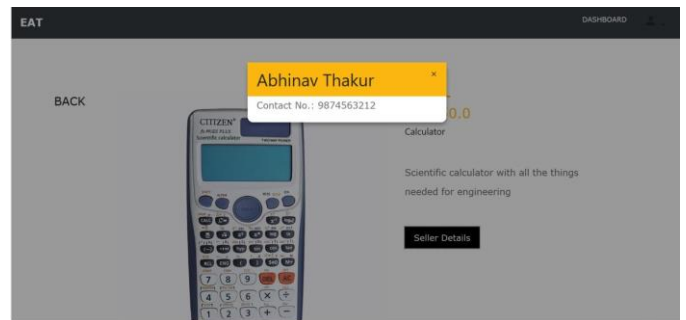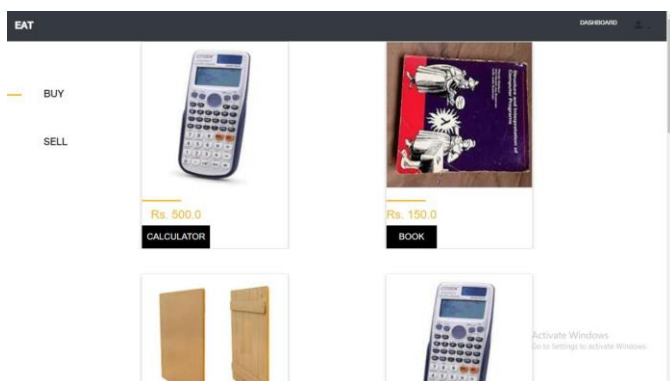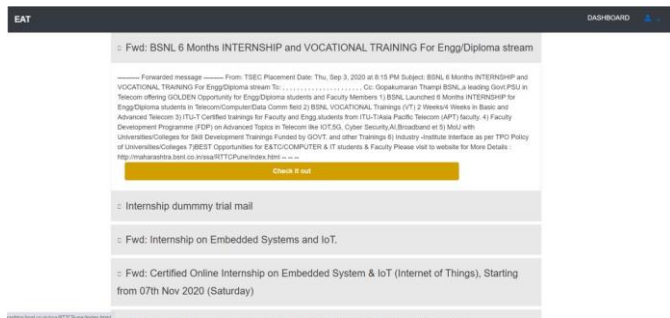
3.3.3 ProductDetails-

On clicking on an individual product, the product id is sent as a parameter to the servlet. The servlet fetches the product details along with the contact number of the seller that is displayed using a modal.

3.3.4 UserProducts

The user product provides a list of products sold by the user on clicking on the Your products option from the navigation bar. The products are identified by unique product id and hence, on clicking on the delete button, the product is deleted from the table through the servlet. The page is refreshed with the updated list of products.

The following are some outputs of our main page and main modules.

4. CONCLUSIONS

To conclude, the Multipurpose portal provides a platform for students with the necessary modules all at one place. It enables student to browse through files uploaded by the teachers subject-wise and also go through the internship mails all together. Also, the students can buy the essential college supplies from their ally. It is helpful as it garners everything together and hence, students would no longer have to use different applications for the given purpose.

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