

Campus Payment And Management System -Web App with Alert System

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Abstract:- To increase financial efficiency and transparency in educational institutions, an online application known as the Campus Payment and Management System (CPMS) with Alerting Capabilities has been developed. This technology allows for real-time warnings to be sent to parents and students about fee modifications, deadline and payment confirmations. Accepting payments for a range of campus services including as tuition, hostel fees, and so on is made simple and safe by the CPMS. It accepts a range of payment methods such as UPI payments, credit/debit cards, and online banking. This article investigates how adding alert features to CPMS is helpful for college and university financial management.

Keywords: campus, payment, alerts, students, fees,web app.

1.1 Introduction

The CPMS is a game-changer in today's educational operational excellence which will provide real-time alerts that is helpful for linking institutions, parents, and students. These notifications informing all parties about fees updates, payment due dates, and other important information. This CPMS also provides students with safe payment choice for a variety of campus services in addition to notifications. It supports online banking, cards, and UPI payments for tuition, hostel fees, and other costs which makes it so convenient. This article thoroughly examines the improvement of financial management in educational institutions through the addition of alert features to CPMS.

1.2 Objectives

The goal is to develop a campus payment and management system with an alert system that will swiftly inform students of fee deadlines and due dates. This will help to reduce late payments and promote financial responsibility within the campus. The principal objective is to optimize productivity through the simplification of student and administrative staff payment procedures. With the help of this system, students should receive notices on time and be fully aware of their financial responsibilities to the institution. The system will also put an emphasis on the user experience, providing all students, regardless of technical ability, with an easy-to-use interface. Sensitive financial data will be protected by security measures, and students will be able to customize their notification selections to suit their own needs.

2.1 Literature Survey

For fees payment system, a lot of study has been conducted. Numerous papers can be found, as indicated in the reference list [1] to [5]. In [1] Lwanga Newton et al. struggled with ineffective systems of fee payment, which led to lengthy lines and delays during exam times. To address this issue, researchers created the MUK-OFPS (an online fee payment system). The system's design was influenced by information from stakeholders that was acquired through questionnaires and interviews. JavaScript, MySQL, PHP, HTML, and the Apache web server were all used in the implementation. Its functioning was tested using user interactions. MUKOPFS offers a one-stop shop to streamline fee payments and address persistent problems with university funding.

In [2] Blockchain technology does not require an intermediary to transfer money which is fundamentally a distributed ledger of the details containing every transaction that has been completed and shared among participating parties. This distributed database keeps track of the accumulation of blocks that include several transactions. As a result, the completed blocks are added to the networks in chronological order. Each completed block has an index, date, data, and a prior hash that identifies the previous block.

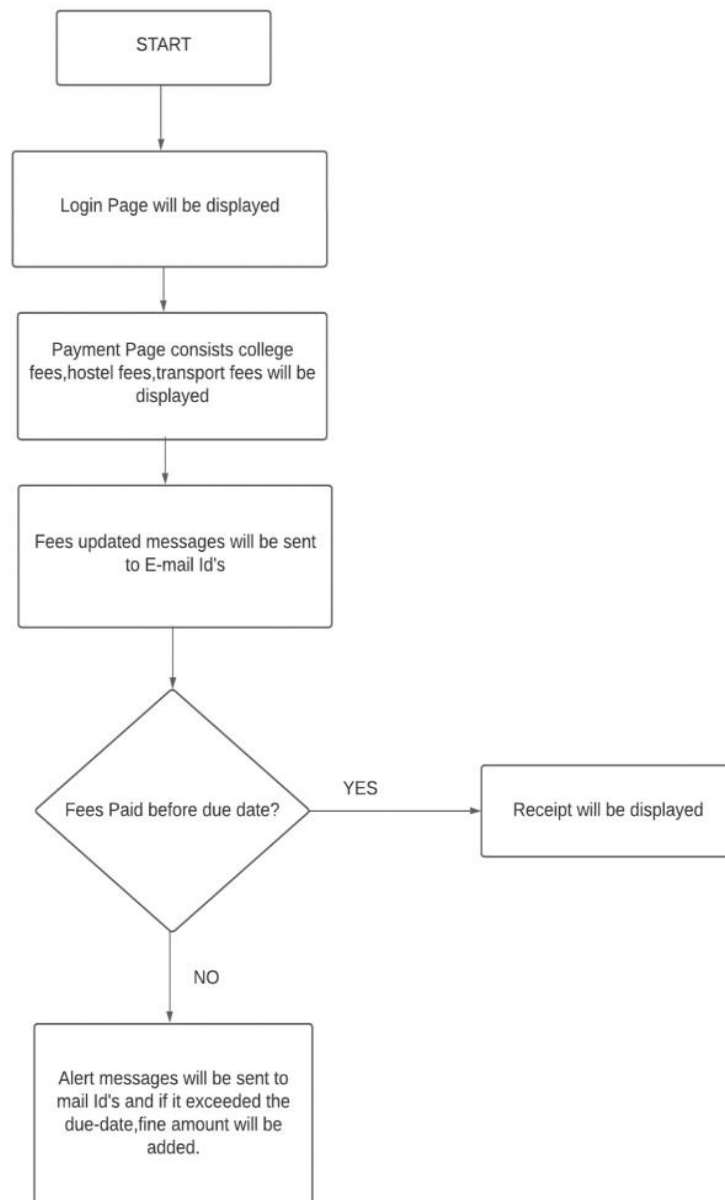
In [3] Using PHP, HTML, and the Object-Oriented Analysis and Design Methodology (OOADM), this project aims to develop a new system that will facilitate fast record access and modification, enhance document security via password protection, and shorten record-keeping times without sacrificing accuracy. Due to their ease of use, security, and efficient financial management, computer-based fee payment systems have gained popularity among certain organizations. This article provides a different method for students to safely pay for their fees online in step with the evolving environment.

In [4] A lot of students use bank drafts, electronic payment transfers, or cash deposits to the University's account at specific bank locations to cover their whole tuition. These methods have consistently proven to be unsuccessful. The hypertext markup language HTML, the hypertext preprocessor PHP, and the MySQL database were used in the creation of the system. With the use of the new technology, students will be able to pay their tuition and receive a receipt automatically. The "quick response" (QR) code is essentially a code that can be scanned both vertically and horizontally. With a scanner connected to a database and a unique QR code linked to their University Seat Number (USN), it is easy to get a student's profile and fee payment details.

In [5] Through cash deposits, electronic funds transfers, or bank drafts to the college accounts at specific bank locations, Ajay Verma et al. pay their full tuition. Particularly during test and exam seasons when most students are paying fees to complete requirements for entering examination rooms, these payment options have not proven to be effective enough. One aspect of paying fees is having to wait in long queues. With this background in mind, the researchers set out to develop a substitute system that would enable sponsors and students to make online fee payments. Data flow diagrams and entity relationship diagrams were used for system analysis and design. III. PROPOSED METHODOLOGY To establish a user-friendly alert system in the Campus Payment and Management System to provide real-time notifications for fee updates, due dates, successful payment confirmations, and notifications regarding the addition of fines after the due date. This will help to increase efficiency and transparency in educational institutions.

3.1 Flow Chart

That will bring up the login page. The user must accurately enter their login information. Details about the fees will be shown on a dashboard page. Once fees have been chosen, the user must click the pay button. There will be fees for confirmation on the payment confirmation page. Various payment choices will be displayed through a payment portal. After the fees are paid, the payment will be successful. Mail will be delivered to the user upon a successful payment. The page with the payment receipt will show up. Following the portal's fee updates, the user receives mail. When the due date approaches, the user also gets a mail alert. After the deadline, a fine sum will be added to the portal. The user mail will also be updated with the due amount. This flowchart will provide information about how CPMS is working with separate pages for admin and user. The fine amount is added by admin after the due date and the mail will be received for alerting that the fine amount is being added which is very necessary step for maintaining the fees portal systems of institutions which is also helpful for correct payments at right time. This CPMS has multiple payment options provided by razor pay which is efficient and user-friendly.



3.2 Platform And Technologies

Visual Studio Code editor is used for code writing and editing. XAMPP is a local host server which will be useful for testing websites before publishing them to a remote web server. It contains Apache Web Server that will host the website in localhost and with MySQL database for storing the data and information of students in tabular format. Front-end development focuses on the visual aspects and user experience of a website. Back-end development contributes for structure, system, data, and logic. Together, front-end and back-end development combine to create a user interactive website. HTML, CSS, and Frameworks like Bootstrap are used for front-end works. HTML is a markup language that is used for formatting a web page, CSS is a design language that you use to make your web page look nice and presentable. CSS stands for Cascading Style Sheets, as we are using it for improving the web page appearance. PHP is used for the back end. PHP (Hypertext Preprocessor) is known as a generalpurpose scripting language which should be useful for creating dynamic user interactive web pages.

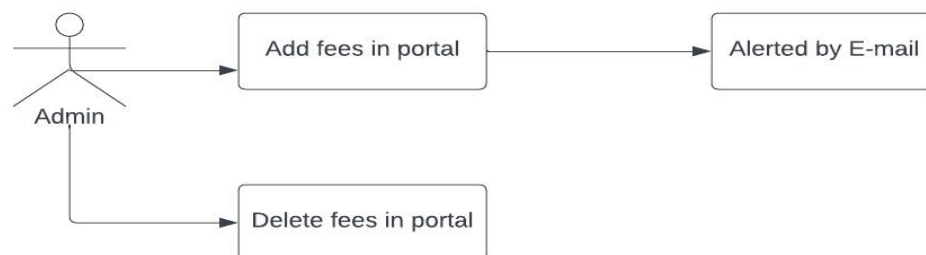


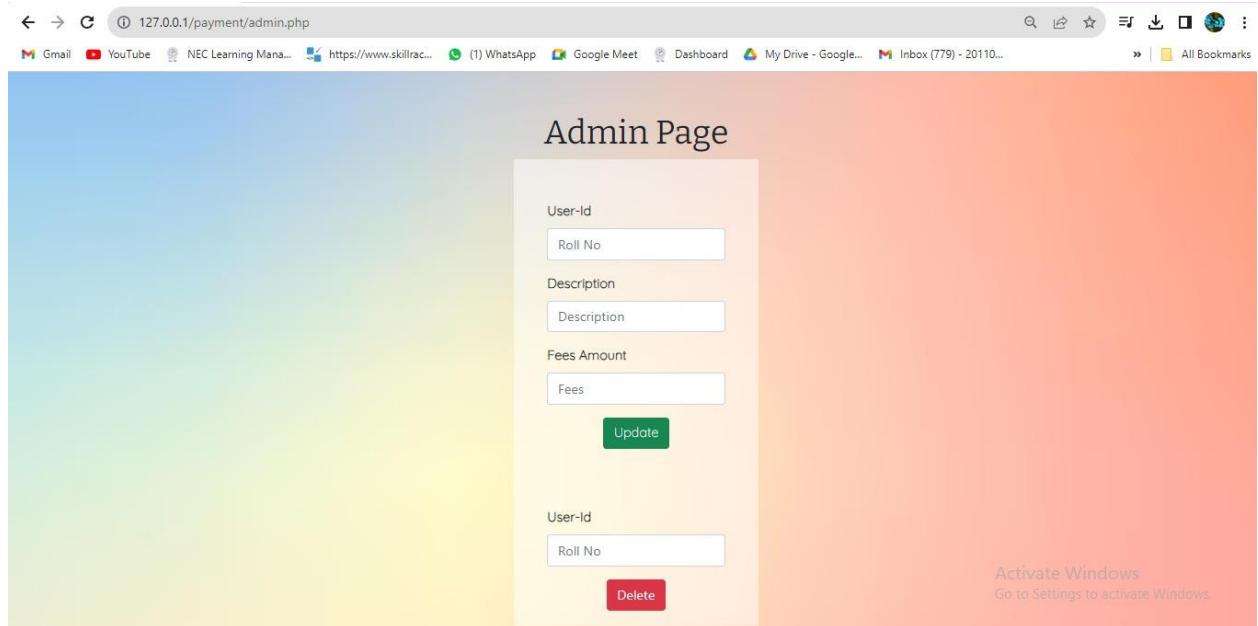
4.1 Performance And Evaluation

The performance of this process is pivotal in ensuring a smooth and satisfactory user experience. Users first log in, with a focus on a seamless login and accurate data. After viewing the fee information, they start making payments and get a confirmation via a payment gateway. It's essential to guarantee payment success and strong security. Email notifications, such as payment receipts, fee changes, and due date reminders, are therefore crucial. It is crucial to calculate fines accurately and to notify customers after due dates. Performance ultimately depends on user satisfaction, security, prompt notifications, and system dependability, with a dedication to continuous improvement to improve the process continuously.

4.2 Admin Page

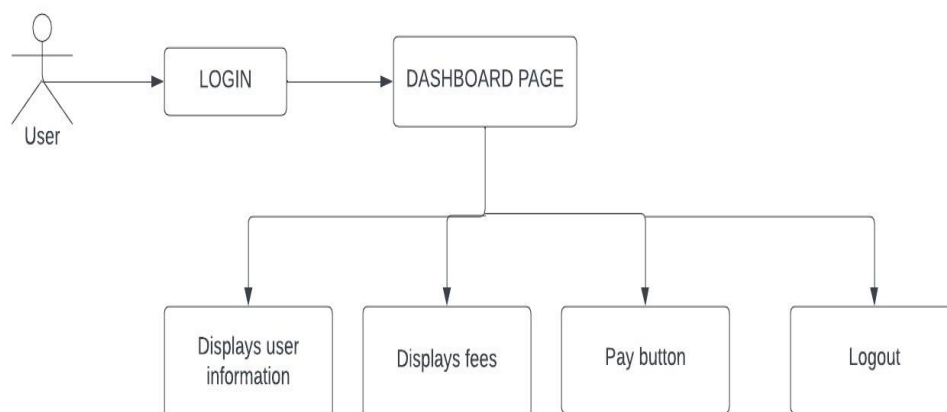
This is an admin page where the admin can add and delete fees for every individual. To add the fees in the fee portal, we must add the description and fee amount by selecting the user from the dropdown and clicking on the update button. For deleting the fees in portal, we have to give the userid and click on the delete button.

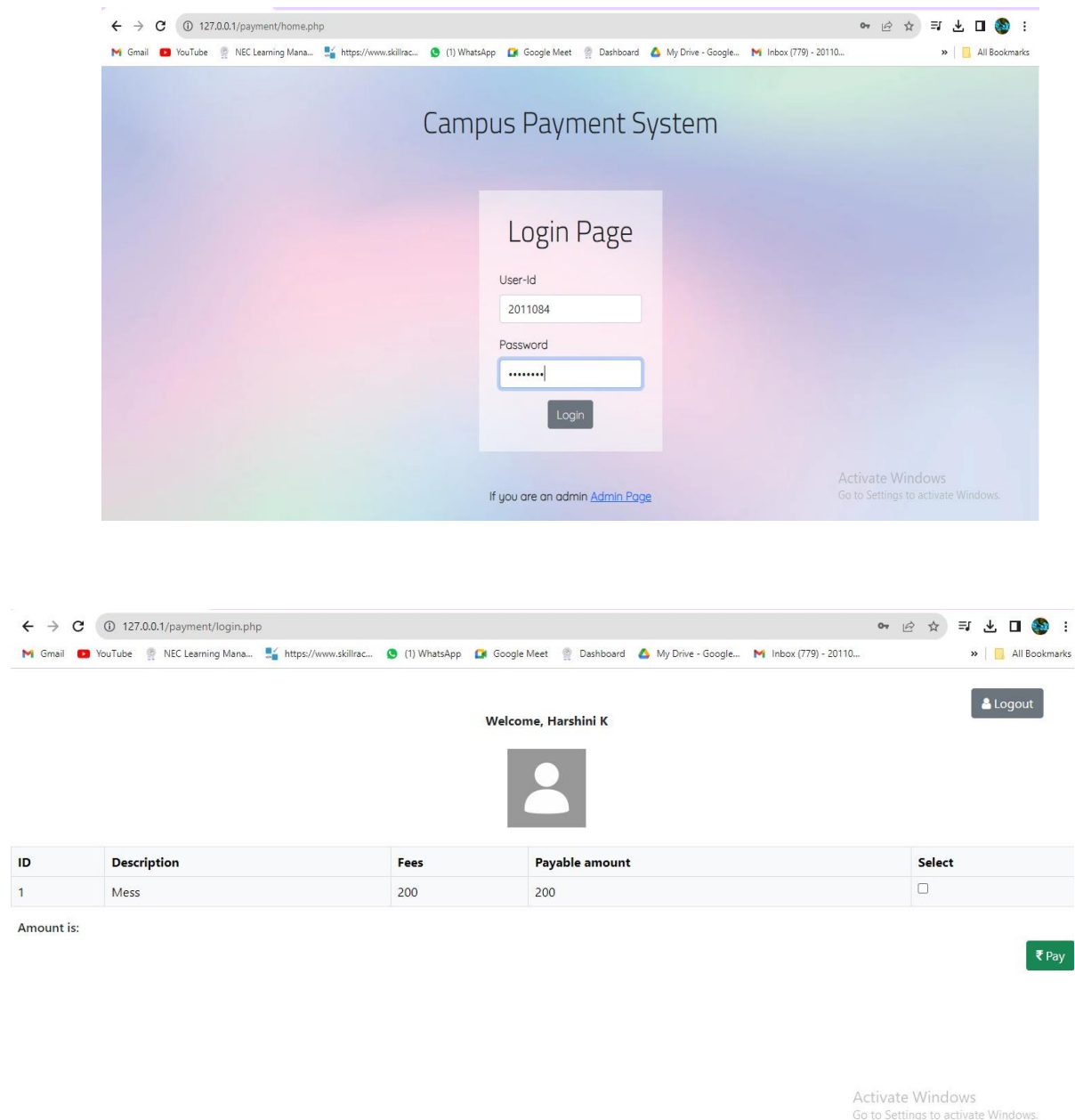




4.3 Login And Dashboard Page

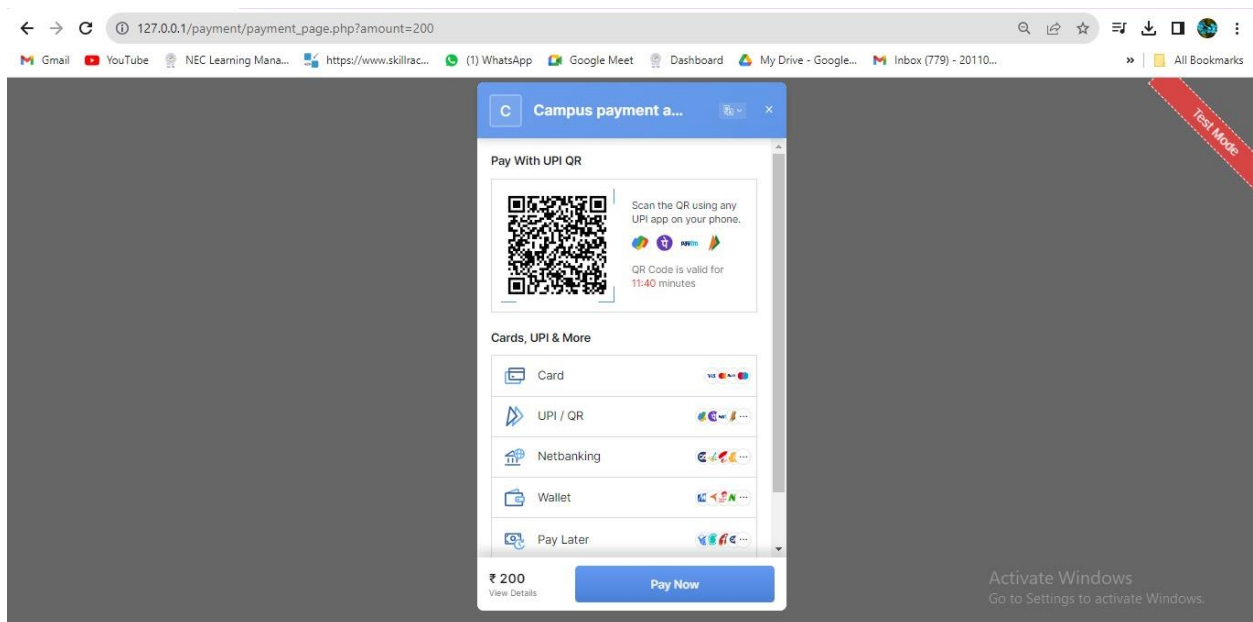
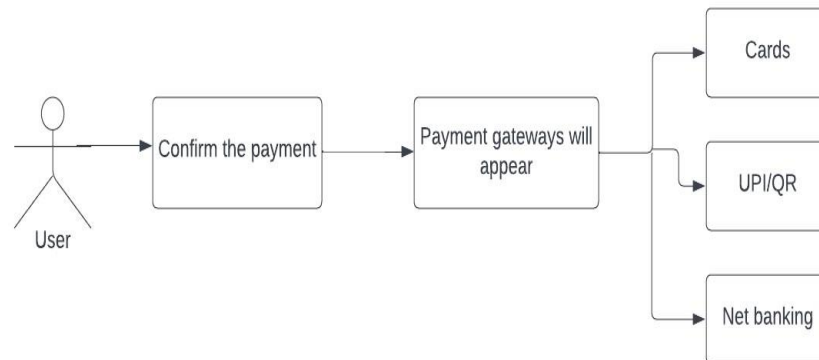
A login page is being created for student or user login where a user has to enter their login credentials like User-Id and Password. A user has to enter the correct login credentials otherwise it will show up an alert like the password is wrong or use-Id not exist. After login, the user will be entered into a dashboard page which is unique for each and every user. This page will show the fee entries and pay button to pay the selected fees (using checkboxes) by simply clicking on it. It also contains a logout button to log out of the session. This serves as the page for a user.





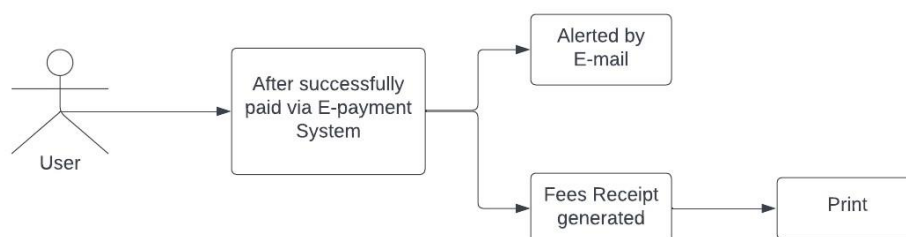
4.4 Payment Confirmation And Gateway

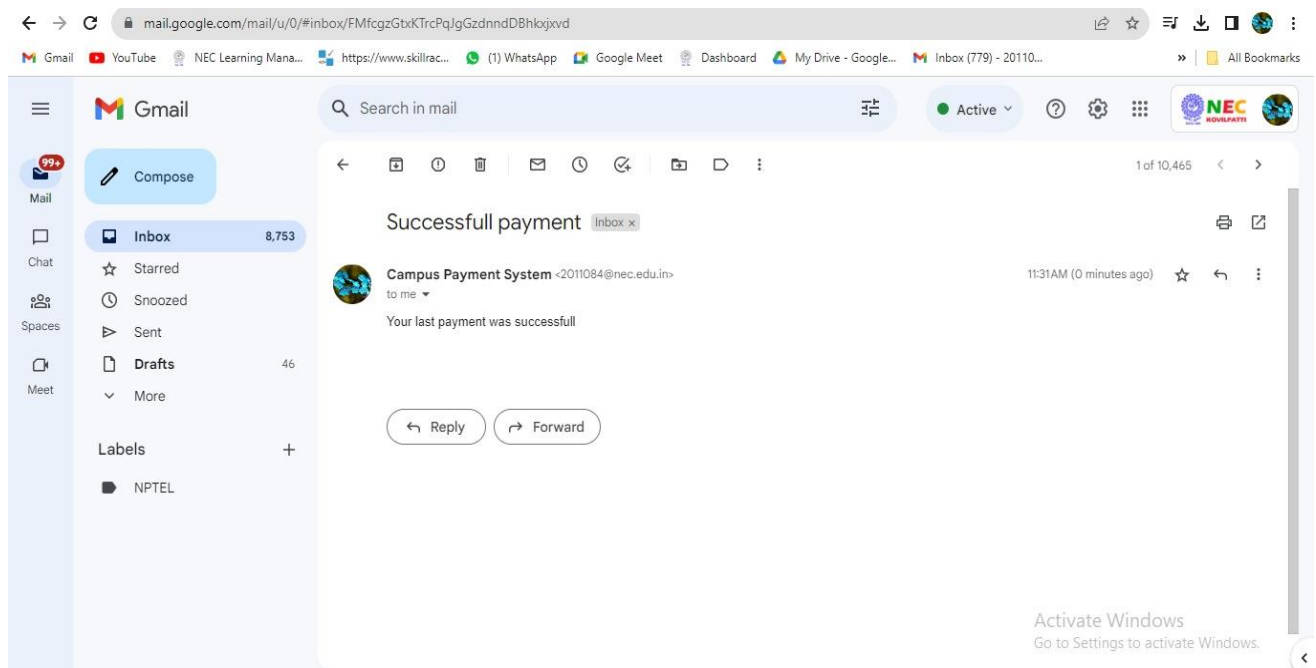
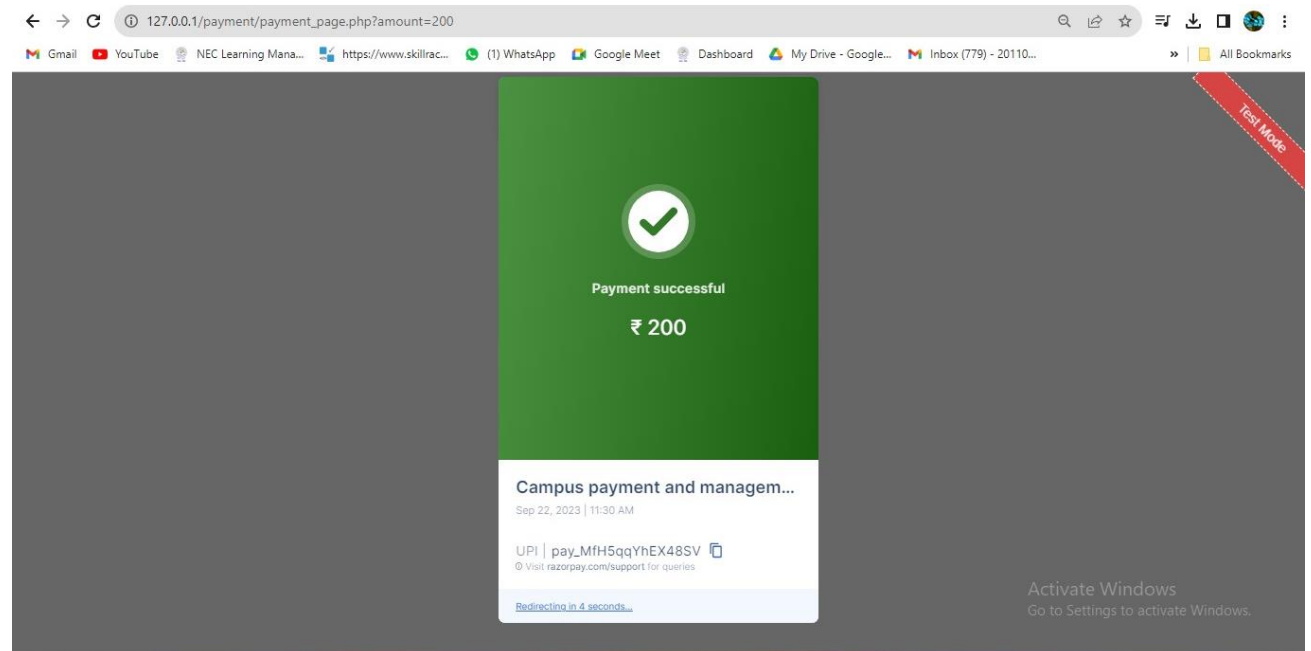
This page is a payment confirmation page that will appear after selecting the fees and clicking the pay button to pay the selected fee amount. This will inform the user about the selected fee amount. After ensuring and confirming the fee amount, a user has to click on the make payment button. This is a payment gateway that contains several payment options like cards, UPI, and net banking systems. After selecting the option and clicking the pay now button, it will show a confirmation page for payment



4.5 Successful Payment and Receipt

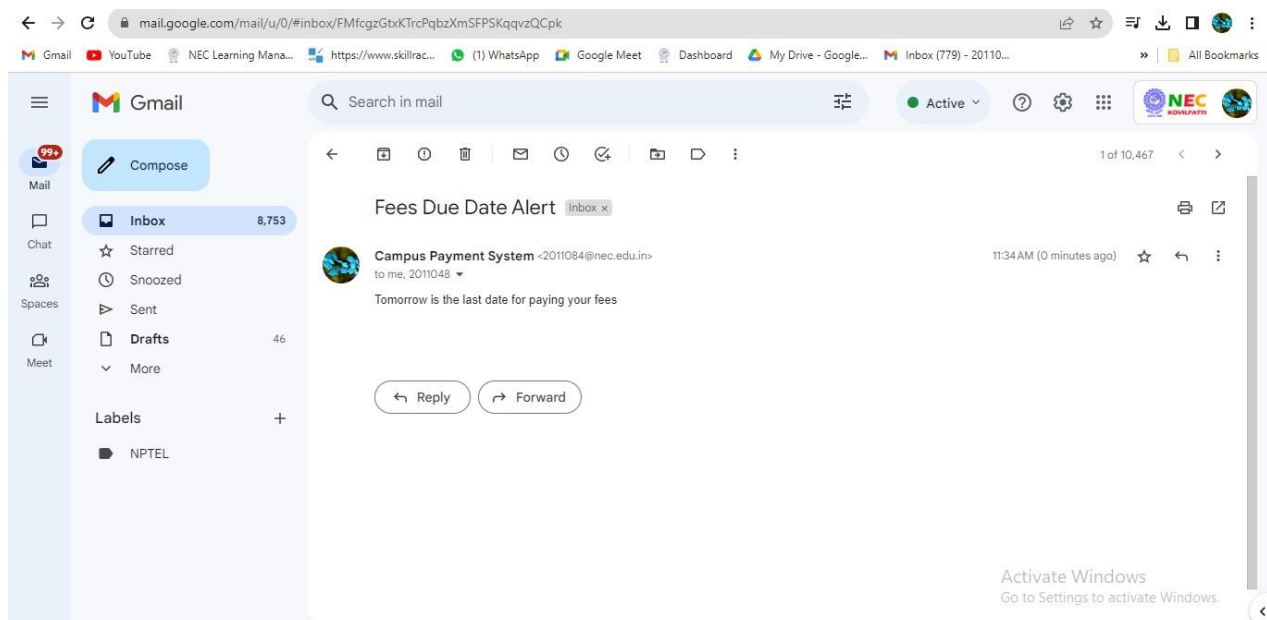
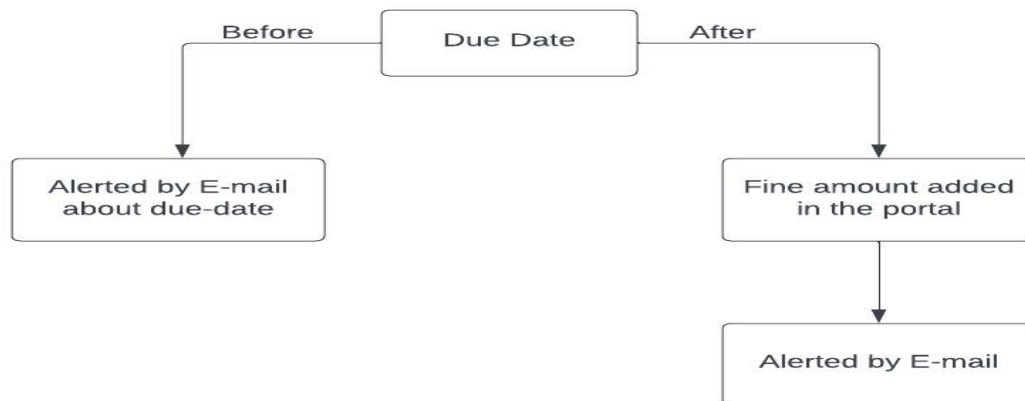
After confirming the payment, a payment successful page will appear. This is a confirmation screen for successful fee payment. After successful payment, the receipt for that transaction will be generated. This is the final page for successful payment confirmation.





4.6 Fee Due Date and Fine Amount

This is a mail indicating the fee due date. This mail will be sent before the due date for fee payment. This will make the users to be alerted about the due dates and it will be helpful for avoiding late payments which is mainly due to the lack of awareness about fees due dates. If an individual user does not make the payment before or on the due date, a fine amount will be added in all the user portals who missed paying the fees on time. This will also be indicated with an email alert.



5.1 Result And Conclusion

A campus payment and administration system with notifications is a helpful tool for educational organizations. It is possible to increase productivity, streamline operations, and enhance the student user experience. To make payments, users can access their accounts from anywhere at any time. The technology can automate a lot of laborious tasks, such as creating reports and processing payments. The system offers real-time visibility into all account action. Robust security measures are used in the system to protect confidential financial information. Alerts about important dates, deadlines, and other information can be sent to users. For educational institutions of all sizes, a campus payment and administration system with notifications is a useful tool.

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