College of Informatics and Computing Sciences

FINAL PROJECT DOCUMENTATION

CS121: ADVANCED COMPUTER PROGRAMMING

Submitted By:

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IT – 2102

Leading Innovations, Transforming Lives, Building the Nation

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<div align="center">

I. PROJECT OVERVIEW

Dreams to Degrees: The Batangas Provincial Scholarship System

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This system is based on actual real-life experience. As a provincial scholar, the journey of passing requirements and looking for the payout schedule is not very convenient. It uses Facebook posts where you must find your name in the ocean of lists consisting of hundreds of other scholars. This manual search process is inefficient and prone to errors, causing delays and adding unnecessary stress.

A login page will greet the users wherein it will automatically ask whether or not the user already has an existing account, if not then it will proceed to the sign-up page, else, it will continue on to the login page. The core function of this system includes an administrative page that can only be accessed by using the set username and password. This window allows admins to review, approve, or reject student applications based on the information and requirements passed by the students. This lessens the amount of work needed to sort through thousands of papers one by one.

If the user is a student after creating an account or logging in, they will be prompted with three options. First is for application, this window is basically an online information sheet wherein applicants need to fill out their personal information. Once an application has been sent the user won't be able to send in another one, it limits the users application to one per semester.

After sending in the application, the student needs to wait for the admin to either approve or reject their application. They can check that in the check status button where it will prompt whether the application has been approved, rejected, or if it is still pending. Once an application has been approved, it will tell the users to proceed to the check schedule button where the schedule of their payout will be prompted, for now the system automatically prompts the date of schedule which is three days after the application has been approved. This system on the other hand does not handle

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any payroll or anything that has to do with money. That matter still needs to be tended to personally to ensure the correct amount will be given.

This system can reduce the application processing time by more than 50% compared to the current system. This not only makes the process more user-friendly for students but also significantly reduces the workload for government employees. This system enhances accessibility, saves time, and improves overall efficiency.

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II. PYTHON CONCEPTS AND LIBRARIES

Python Tkinter

The program uses the Tkinter module to create a basic Graphical User Interface (GUI). This allows users to interact with the system by viewing information, inputting data, and triggering actions. This makes the program more interactive and user-friendly, enabling real-time data entry and manipulation.

MySQL Connector

This module allows the program to connect Python to a MySQL database, enabling data manipulation and storage. Once connected, the program can execute MySQL commands, allowing efficient data handling. This integration ensures that data can be stored, retrieved, and reused, enhancing the system's functionality and persistence.

PIL (Pillow)

For handling and manipulating images. It supports a wide range of image formats, allowing developers to work with various types of image files. Pillow makes it easy to perform basic operations such as opening, saving, resizing and cropping of images

ttk (Themed TKinter)

This module provides access to a set of themed widgets for use with Tkinter, the standard GUI toolkit in Python. While Tkinter offers basic widgets like buttons, labels, and entry fields, ttk enhances the appearance and functionality of these widgets by providing a more modern and native-looking interface.

Webbrowser

This module provides a simple interface to open URLs in the user's default web browser. It is useful for automating tasks that involve web browsing, such as opening web pages, launching web applications, and for this system viewing the uploaded pdf file.

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Datetime

This module in classes for manipulating dates and times. This library allows developers to format dates and times according to specific requirements. The module helps handle time zones, timestamps, and date/time calculations, making it essential for time-sensitive applications.

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III. SUSTAINABLE DEVELOPMENT GOALS

The following are some of the SDG's that are concerned with this Scholarship Application and Payroll System.

SDG 4: Quality Education

Scholarships provide financial support to students, helping them access quality education, especially those from a low-income household. It promotes greater inclusivity and equal opportunities for all. Scholarships help make education affordable and attainable, giving students a chance for a greater future and a better life.

SDG 1: No Poverty

Scholarships provide financial support to students who might be unable to afford education, this breaks the cycle of poverty from their families. By providing educational opportunities, scholarships help individuals improve their social and economic conditions.

SDG 10: Reduced Inequality

Scholarships, especially for groups like low-income students, those from rural areas, or ethnic minorities, help create fairer opportunities. Giving students from these communities a chance to have good quality education helps reduce social and economic inequalities.

SDG 17: Partnership for the Goals

Many scholarship programs are established through partnerships between governments and educational institutions. These collaborations enhance the reach and impact of scholarship initiatives, ensuring they align with broader development goals and provide access to education on a bigger scale.

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IV. PROGRAM/SYSTEM INSTRUCTIONS

A. Sign Up/Login Page

This is the entry page to the system, first it will prompt a message box asking whether or not the user already has an existing account. If yes, it will prompt the login page, otherwise it will redirect to the sign-up page. Both this window ensures that all fields needed are filled out, the login page makes sure that the password entered matched the one saved in the database.

B. Admin Window

Full Name	Birthday	Address	Email	School	Level	Grade Level	GWA		
onzales,Cassandra Shaine A.	2005-07-27	Conde Labac	cassandra@gmail.com	Batangas State University	College	2nd Year	1.51	/	X
Masagpag, Ayesha Marie M.	2005-05-24	Sta Rita	ayeshamarie@gmail.com	Batangas State University	College	2nd Year	1.60	/	X
Rendon, Zaira Mae A.	2004-09-17	Alangilan	zairamae@gmail.com	LPU Batangas	College	3rd Year	1.35	/	X
Alon. Ma. Annita C.	2009-10-12	Sto. Nino	anitta@gmail.com	St. Bridget College	High School	Grade 10	83.00	/	X
Disacula, Ma. Lhiana A.	2010-03-19	Sta Rita	malhiana@gmail.com	University of Batangas	High School	Grade 9	95.00	/	X
Rena, Ainjeal M.	2003-07-15	San Pascual	ainjeal@gmail.com	University of Batangas, Lipa	College	3rd year	1.75	/	X
Mendoza, Angel Rymndza S.	2005-11-25	Alangilan	angelrymn@gmail.com	Batangas State University	College	2nd Year	2.50	/	X
Cordova, Joyce Ellaine D.	2002-10-28	Sto. Domingo	joycellaine@gmail.com	Batangas State University	College	4th Year	1.75	/	X
Carag, Jiro Nino Angelo A.	2011-10-01	Malalim	jirocarag@gmail.com	Libjo Elementary School.	High School	Grade 8	93.00	/	X
Erlano, Alexis Nicole M.	2008-04-10	Bauan	alexis@gmail.com	Bauan Technical Integrated	High School	Grade 11	82.00	/	X

exit

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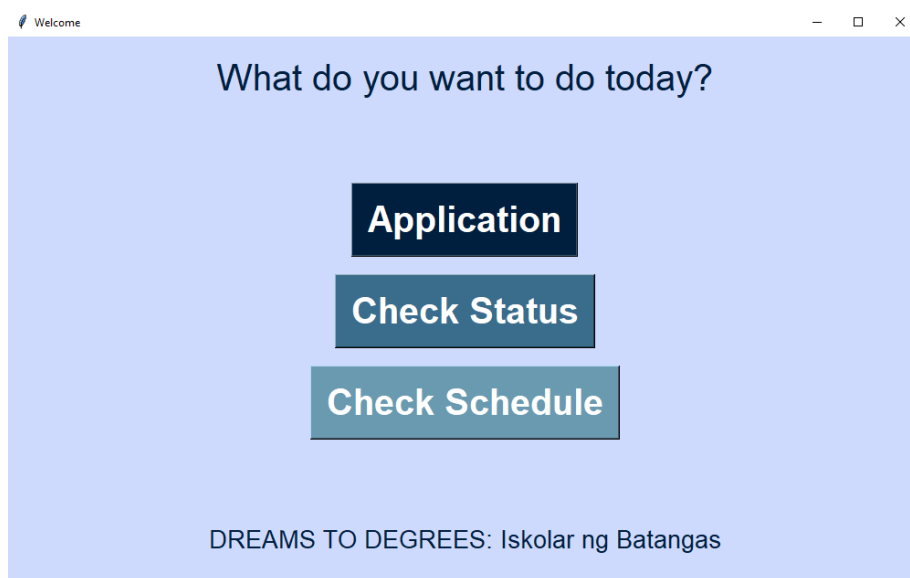**Golden Country Homes, Alangilan Batangas City, Batangas, Philippines 4200**
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The admin window can only be accessed through a specific username and password set into the program proper (Username: useradmin, Password: adminpass). This window shows all the information about all the applicants. Only the admins have the power to accept or approve an application by clicking the button beside each row.

C. Home Page

This home page presents the user with three options. For application, status checking or schedule checking. Depending on what the user chooses, it will either redirect to the application window or prompt the status and schedule of the applicant.

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C. Application Window

The application window is basically an online information sheet. This is where the applicants fill out their application and where they will upload the necessary files for their application. The view pdf button is added to check the uploaded document, once clicked it will redirect to a web browser where the pdf file will be prompted. Before submitting a message box will appear for confirmation that all information provided was true and accurate.
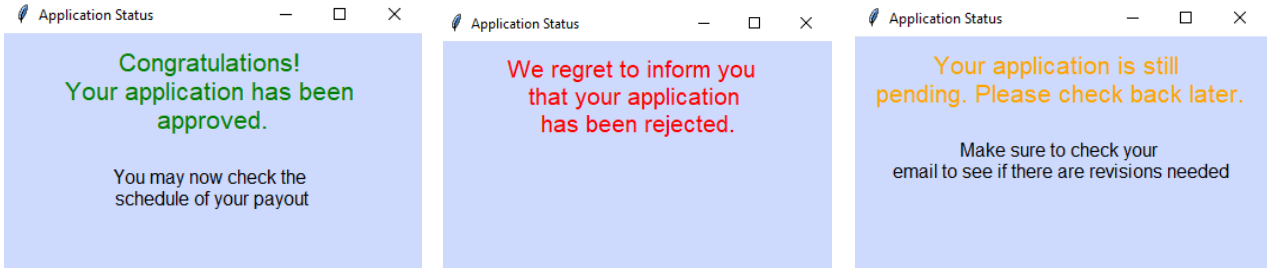
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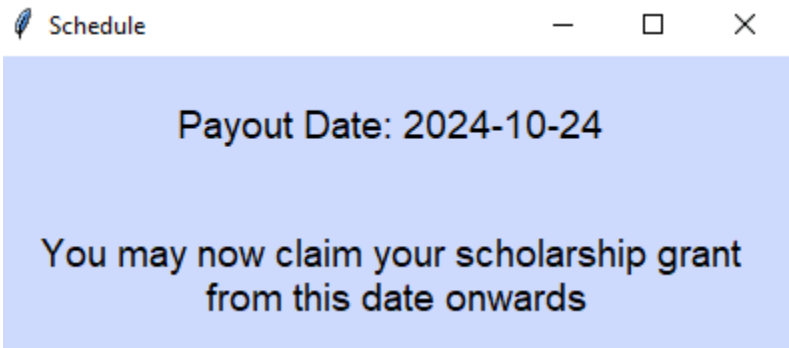Tel Nos.: (+63 43) 425-0139 local 2222 / 2223
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C. Check Status

When the check status button is clicked the user will be prompted with any of these 3. If the user has not sent in an application, a message box that says application not found will be prompted

The check schedule button redirects to this only if the applicant is approved. They can only access this button if their application was approved, otherwise a message box that either say application rejected or application pending will be prompted.