POLYTECHNIC UNIVERSITY OF THE PHILIPPINES

AEGiS: Automatic Encoding of Grades in SIS

A Project
Presented to the Faculty of
Computer Engineering Department
Polytechnic University of the Philippines
Sta. Mesa, Manila

In Partial Fulfillment
Of the Requirements for the Degree
Bachelor of Science in Computer Engineering

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Acknowledgement

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Also, Dr. Lutzer U. Reyes for his inputs to push us and make our project come out the best as we can.

We would also like to thank our parents for unceasingly supporting us in our journey as students and continually providing for our needs.

Huge thanks to Louisa's housemates Anzette, Corewin, and Kim Ann for letting us do our project in your space and for being considerate of our loud voices and laughs in the middle of the night. Shout out to Abigail Rose and Richard for being our project mate!

To God be the glory!

Dedication

We dedicate this project to our parents, passing this project will allow us to take a step closer to graduation. We love you!

Of course, PUP CpE faculty, this one's for you. We hope that through this system that we made, it will help make your work easier and faster.

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RATIONALE

Encoding grades in the Polytechnic University of the Philippines Student Information System for Faculty has always been a hassle for the professors whenever it is encoding period. The faculty needs to pick or type from a dropdown list the student's midterm and final grade one by one.

Usually, faculty members encode their class records using Microsoft Excel for faster and easier computation of grades. Given this problem and inconvenience, the proponents have created AEGiS: Automated Encoding of Grades in SIS, a Visual Basic program that allows the faculty member to automatically encode grades with reference to their Microsoft Excel file.

PROBLEM DEFINITION

The PUP Faculty encodes the grades of each student in every class manually in the PUP SIS for Faculty website and it usually takes a lot of time to complete encoding grades for all handled classes of a single faculty. The number of students in a computer engineering block section is ranging from 30-40 students. Encoding the midterm and final grade of each student would really take a lot of time to accomplish. Switching from MS Excel to web browser to encode grades is mentally and visually challenging for the faculty members.

PROPOSED SOLUTION

The proponents came up with an idea of creating an application that allows the faculty members to automatically encode the whole class's grade in a quick and effective way. Using Visual Basic as a medium to create a powerful application will surely help the faculty members lessen time

and effort given in encoding grades for the class. With that being mentioned, the proponents came up with the name AEGiS: Automated Encoding of Grades in SIS.

SIGNIFICANCE OF THE STUDY

Aside from teaching, making lesson plans, reviewing lessons, accomplishing deliverables in their corporate jobs (for part-time faculty members), attending to their administrative positions within the university, and many more responsibilities, encoding of grades is also one of the primary duties of a faculty member. AEGiS: Automated Encoding of Grades in SIS will be a great benefit for them as encoding grades of a class can be accomplished quicker as each student record of each class they handle are manually inputted and that takes so much time. The faculty can be more productive and do complete other requirements or do other activities as they wait for the automatic encoding of grades to finish.

SCOPE AND LIMITATIONS

Downloadable Template for Grade Encoding

AEGiS: Automatic Encoding of Grades in SIS allows the user to download a Microsoft Excel file that will be used as a guide grade sheet for the user to input his/her class record. These objects to be inputted are school year, semester, subject code, course code, year level, section, name of student, student number, and grades for midterm and final period.

Uploading the Excel File of Grades

After completing the grade sheet, the user will be uploading the file using the file browser in the application given the user's username and password fields are accomplished.

Automatic Encoding of Grades of the Class

AEGiS: Automated Encoding of Grades in SIS will automatically log the user in PUP SIS for Faculty website and fill out the necessary fields with respect to the data inputted in the username and password fields in the application and data in the grade sheet Excel file.

Limitations

AEGiS: Automated Encoding of Grades in SIS requires a computer in great condition, Microsoft Excel, and a stable internet connection to work smoothly as the application connects to the Polytechnic University of the Philippines Student Information System for Faculty website.

The proponents used a test environment of PUP SIS for Faculty – Faculty Management Module to simulate its process of encoding of grades. The actual production has confidential data and therefore cannot be used for testing purposes of application, AEGiS: Automated Encoding of Grades in SIS.

PROJECT OUTPUT

Upon running the AEGiS application as seen in Figure 1, the faculty member will input his/her username and password in the textbox on the left side of the screen and browse the accomplished grade sheet by clicking the “Browse Grade Sheet” button that will open the File Explorer of the computer. The faculty will be able get the template for the grade sheet by clicking the “Get Grade Sheet Template” button at the bottom. After accomplishing all those fields, the faculty will now be able to click “Encode Grades” button to encode the grades automatically. The application also has a web browser that loads the website and allow the

faculty to see and verify the grades encoded without opening the website using a web browser.

Aside from the VB application itself, the proponents also created a Test Environment Version of the PUP SIS for Faculty – Faculty Management Module since the real production of the Faculty Management Module is in use and has very confidential data and not is recommended to use for testing purposes. The proponents developed a Java Server Page (JSP) that mirrors the user interface and function as the actual PUP SIS for Faculty Module.

PICTURES

Figure 1. Initial program UI

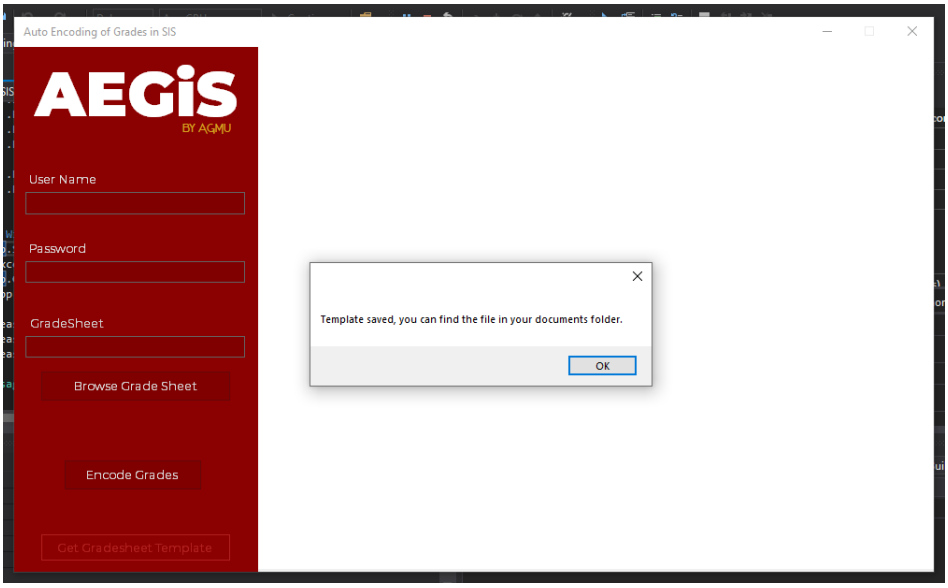


Figure 2. Template Downloaded Successfully

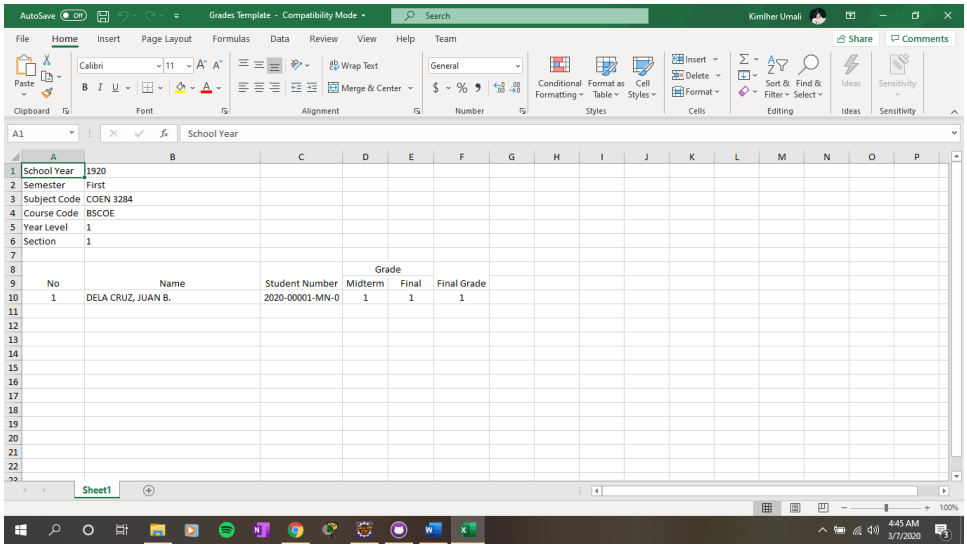
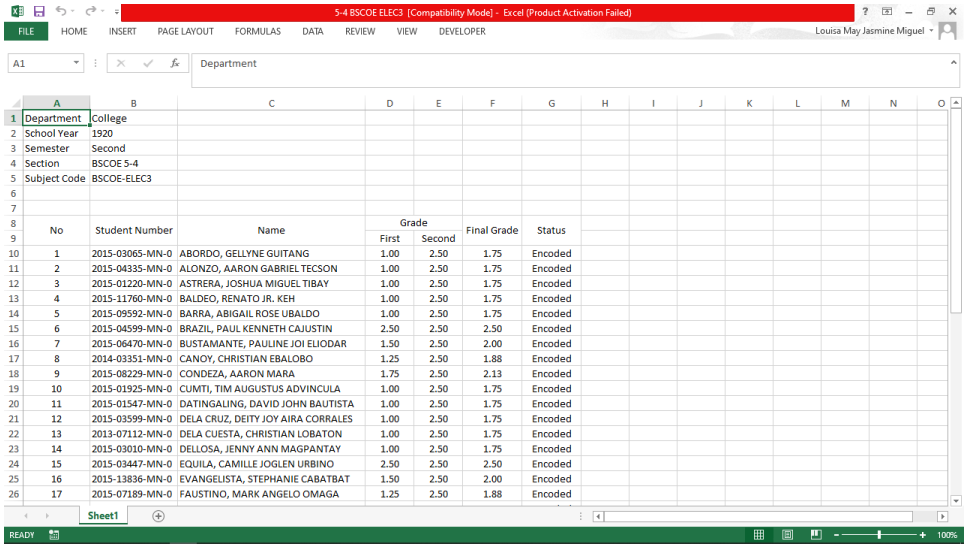


Figure 3. Grade Sheet Template Excel File



Department	College	
School Year	1920	
Semester	Second	
Section	BSCOE 5-4	
Subject Code	BSCOE-ELEC3	

No	Student Number	Name	Grade First	Grade Second	Final Grade	Status
1	2015-03065-MN-0	ABORDO, GELLYNE GUITANG	1.00	2.50	1.75	Encoded
2	2015-04335-MN-0	ALONZO, AARON GABRIEL TECSON	1.00	2.50	1.75	Encoded
3	2015-01220-MN-0	ASTRERA, JOSHUA MIGUEL TIBAY	1.00	2.50	1.75	Encoded
4	2015-11760-MN-0	BALDEO, RENATO JR. KEH	1.00	2.50	1.75	Encoded
5	2015-09592-MN-0	BARRA, ABIGAIL ROSE UBALDO	1.00	2.50	1.75	Encoded
6	2015-04599-MN-0	BRAZIL, PAUL KENNETH CAJUSTIN	2.50	2.50	2.50	Encoded
7	2015-06470-MN-0	BUSTAMANTE, PAULINE JOI ELIODAR	1.50	2.50	2.00	Encoded
8	2014-03351-MN-0	CANOY, CHRISTIAN EBALOBO	1.25	2.50	1.88	Encoded
9	2015-08229-MN-0	CONDEZA, AARON MARA	1.75	2.50	2.13	Encoded
10	2015-01925-MN-0	CUMTI, TIM AUGUSTUS ADVINCULA	1.00	2.50	1.75	Encoded
11	2015-01547-MN-0	DATINGALING, DAVID JOHN BAUTISTA	1.00	2.50	1.75	Encoded
12	2015-03599-MN-0	DELA CRUZ, DEITY JOY AIRA CORRALES	1.00	2.50	1.75	Encoded
13	2013-07112-MN-0	DELA CUESTA, CHRISTIAN LOBATON	1.00	2.50	1.75	Encoded
14	2015-03010-MN-0	DELLOSA, JENNY ANN MAGPANTAY	1.00	2.50	1.75	Encoded
15	2015-03447-MN-0	EQUILA, CAMILLE JOGLEN URBINO	2.50	2.50	2.50	Encoded
16	2015-13836-MN-0	EVANGELISTA, STEPHANIE CABATBAT	1.50	2.50	2.00	Encoded
17	2015-07189-MN-0	FAUSTINO, MARK ANGELO OMAGA	1.25	2.50	1.88	Encoded

Figure 4. Accomplished Grade Sheet

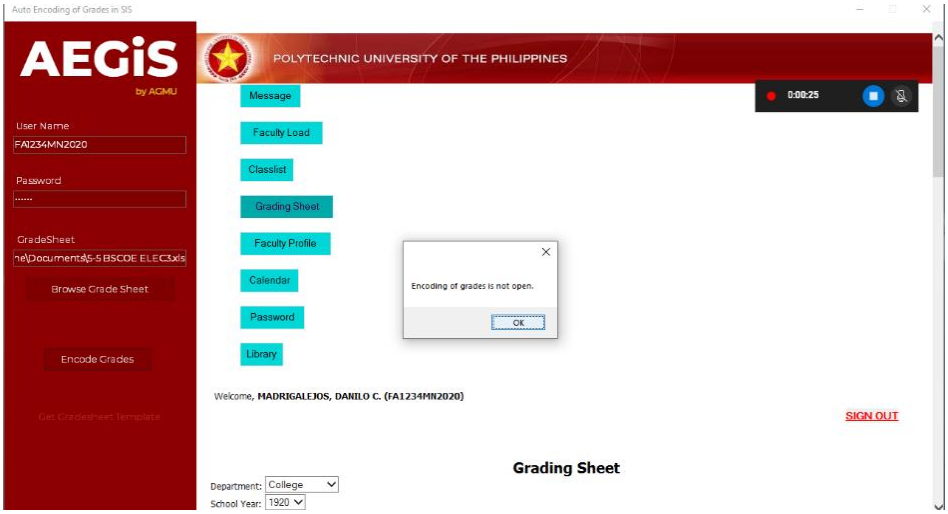


Figure 5. Encoding of Grades

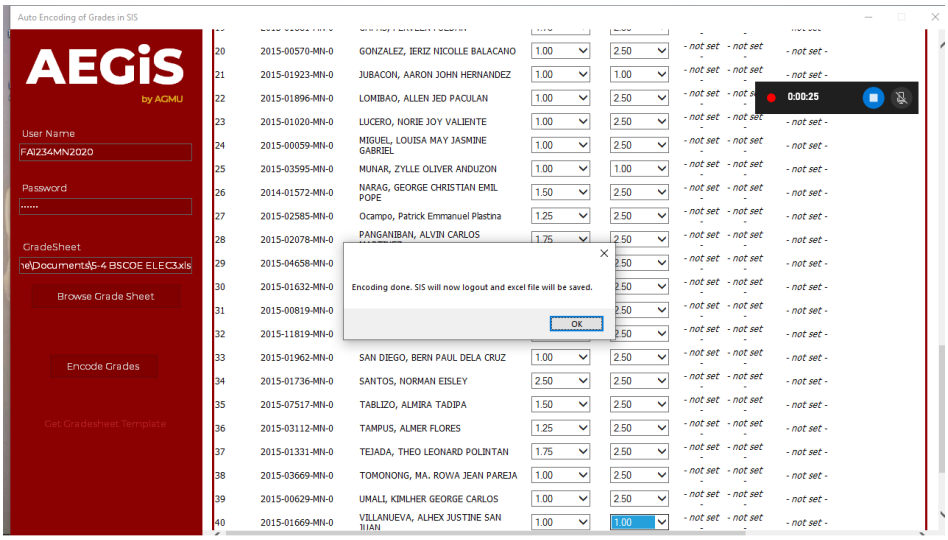


Figure 6. Grades Encoded Successfully

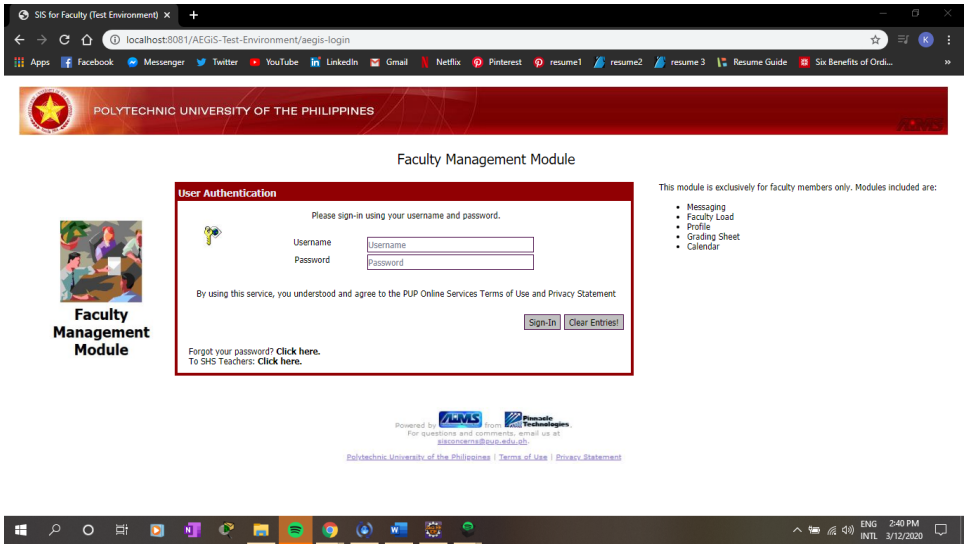


Figure 7. Faculty Management Module – Login

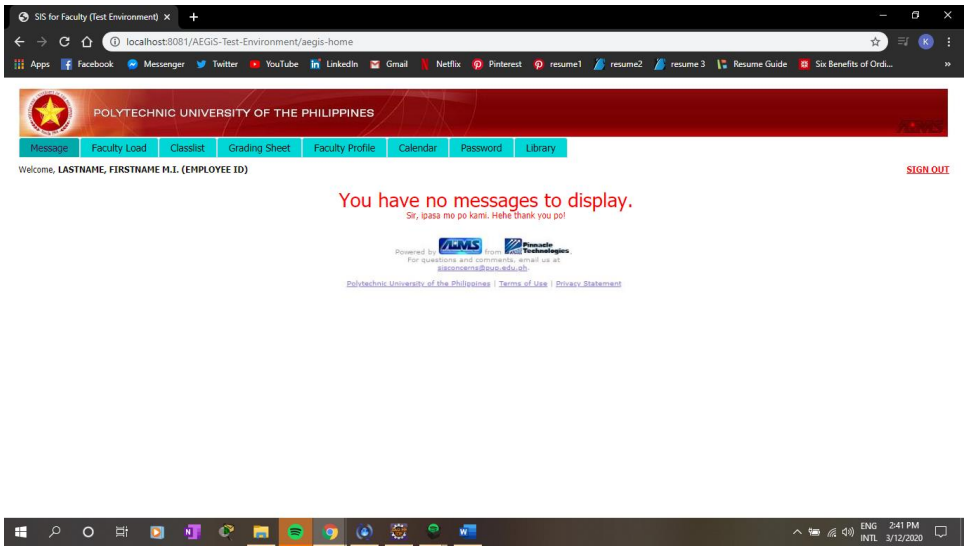


Figure 8. Faculty Management Module – Message Panel

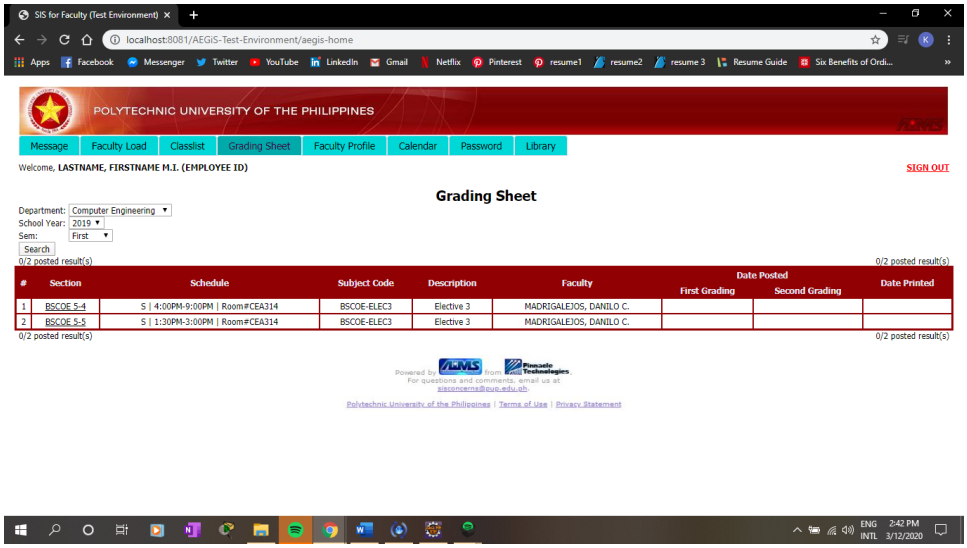


Figure 9. Faculty Management Module – Grading Sheet Panel

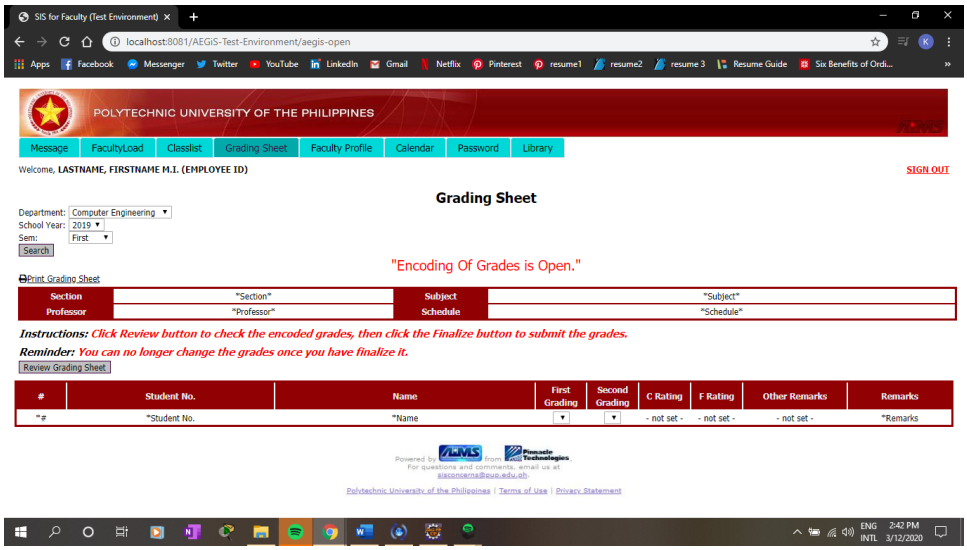


Figure 10. Faculty Management Module – Grading Sheet (Open for Encoding)

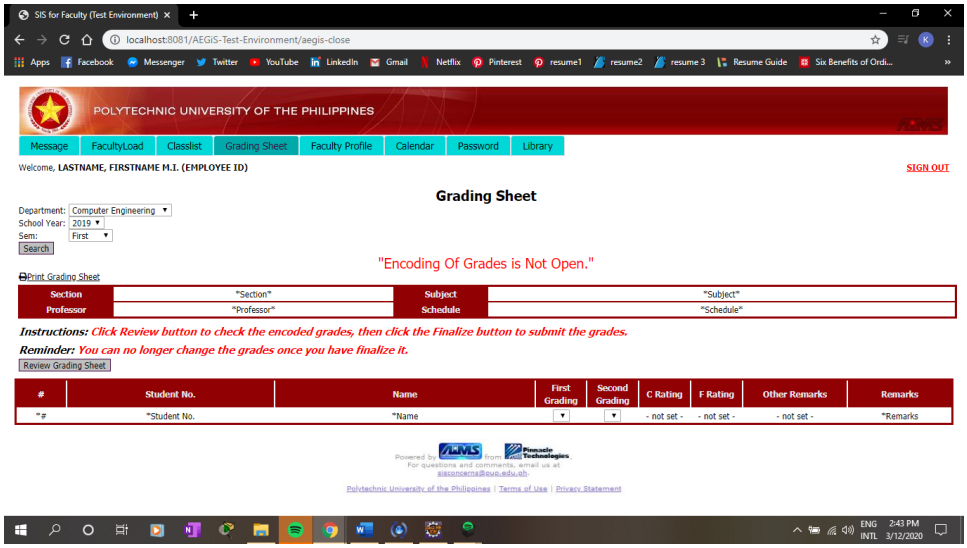


Figure 11. Faculty Management Module – Grading Sheet (Closed for Encoding)