

NORTHWEST NAZARENE UNIVERSITY

Denali Student Portal Documentation and Loadsheet Preparation.

THESIS

Submitted to the Department of Mathematics and Computer Science

in partial fulfillment of the requirements

for the degree of

BACHELOR OF SCIENCE

Blaze Harrison Bosma

2024

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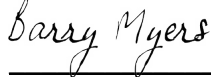
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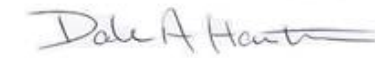
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ABSTRACT

Denali Student Portal Documentation and Loadsheet Preparation.

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The Denali Project is a Northwest Nazarene University division in charge of the migration from the current student database to its replacement. A new student portal must be created in this move, and the current functionality needs to be documented. This documentation was to also include links to Anthology's own student portal documentation to allow the staff to compare and contrast the offered features and understand what must be created from scratch in the transition. There were also a number of Excel loadsheets that needed to have calculations run on them for historical records. This was a process of taking the data and using Excel's functions to find specific data points from several years of loadsheets and combine them together in a master loadsheet pulling from each individually. In addition, there were custom locations attached that were added manually for clarity of information.

Acknowledgements

First, I would like to thank the staff who I worked with on this project, Dr. Myers, Dave Covington, David Stillman, and Kevin Mark. Without their guidance and patience, I wouldn't have been able to complete the work I did, and they made the work environment inviting and efficient. I learned a lot from working under and alongside them, and I appreciate the experience I gained and the effort they put in to helping me learn and improve.

I would also like to thank my fellow student interns Timothy Zink and Carter Katzenberger. Without their help the amount and quality of progress would not be as high, and their companionship throughout the process was greatly appreciated. Working in the office would not have been the same without them.

Finally, I would like to thank my parents for their constant support and encouragement. Without them my college journey would never have been possible, and their guidance was key in making it to the finish line.

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Introduction

This project is primarily divided into two subdivisions. The first component is the student portal documentation. This involved documentation of the individual elements of the current student portal, which were organized into distinct sections based on the website's organization inside a Microsoft Excel sheet. Details about this sheet such as the names of the rows and functions within the document will be discussed. The documentation completed was then compared and contrasted with the replacement student portal documentation. The second major component of this project was the Excel loadsheet preparation. This was a process of taking many Northwest Nazarene University loadsheets and compiling data from each using a series of lookups and equations and compiling this gathered data under a larger master sheet. The process of gathering this data as well as specifics to the fields included will be discussed in the segment about the Excel loadsheet preparation.

Background

There is a transition away from Northwest Nazarene University's current student database and portal host to a newer host. One side effect of this transition is that the old data and functionality needs to be preserved, and that is where the Denali Project enters. The Denali team is in charge of this transition and has done extensive work relating to the changes that have been made or will be made in the future. One aspect of this preparation work relates to the student portal as it stands currently and how it will change under Anthology. This is the reason behind the portal documentation. The shift will also bring about new ways to store data, and thus the Excel loadsheets needed to be reorganized for historical data retrieval, which is the reason behind the work done on those.

Body

Student Portal Documentation

The most initial work done was a document quickly completed as a draft of what the student portal documentation would eventually become. This documentation was done in a Google Doc and gave a basic layout of all of the features of NNU's student portal and some of the more specific features. This would inspire the final document that is currently in use.

Initial Documentation Phase

Northwest Nazarene University's student portal is currently organized into 21 sections with links to each on the left side of the page. A few of these sections have further subcategories, and this is how the structure of the completed documentation was laid out. Each category was listed on an Excel sheet and divides the documentation into categories. To the right of the category lies all of the individual elements of each of the larger pages, listed in the order they appear on the website, from top to bottom. These elements included things such as student information and course schedules. An added description of each component's purpose lies to the right of the element on the sheet.

Comparison to New Documentation

After the total functionality of the current student portal was documented and compiled the second phase of the student portal documentation began, which was the comparison of the current student portal to that of the replacement. To discover the differences between the new and old student portal, the documentation of the new portal was investigated. After searching the entirety of the documentation, a list was compiled of three possibilities. (Student Portal Help) The first was that the new student portal

documentation confirmed that the feature that exists on the current student portal has a direct equivalent in the replacement student portal, marked by a “yes.” The second is that there is no direct equivalent in the new student portal, which was marked with a “no.” The third was an “unclear” category, which was marked by a lack of clarity within the new student portal documentation in whether this feature had an equivalent or not. If the marks were “no” or “yes” a direct link to the section of the documentation that confirmed or denied the feature was added. For example, if the current student portal has a feature that displays the number of classes that are being offered currently, the new student portal documentation would be searched. If there was an equivalent feature, the documentation would be added as “yes,” and a link to the page that confirms this would be attached to the “yes.”

1	Category	Web Data Component	Purpose	Anthology Feature	Custom Web Part	Data Source
2	NNU Student Confirmation	Student Confirmation	Ten day student enrollment confirmation	Unclear		Anthology Student
3	NNU Student Confirmation	Student Confirmation Credits	Confirm with the student how many credits are being take	Yes	No	
4	New Banner	Student ID	Let students know their Identification number	Yes	No	Anthology Student
5	New Banner	Major	Let students know their major	Yes	No	
6	New Banner, Degree Audit	Advisor	Tell students their advisor + email address of the advisor	Yes	No	
7	New Banner	Registration Time	Let students know when they can register	Unclear		
8	New Banner	Chapel Attendance/Requirements	Tell students how many chapel credits they need/have	No	Yes	Modern Campus Presence
9	New Banner	Chapel Alternate	Tell students how many alternate chapels they have	No	Yes	Modern Campus Presence
10	New Banner	Chapel Late	Tell students how many late chapels they have	No	Yes	Modern Campus Presence
11	New Banner	Most Recent	Tell students when the most recent chapel they have atten	No	Yes	Modern Campus Presence
12	Student Schedule	Course Schedule	Course, Title, Credits, Grading Type, Faculty/Meeting, Date	Yes	No	
13	Pay Bill, Pay your bill	Pay Bill	Allow students to pay bills directly	Yes	Yes	Flywire
14	Pay Bill	Course and Fee Statement	Give information on what each part costs	Yes	No	
15	Payment Plan Info	Payment Plan Info	Tell students about Flywire and how it is used	No	Yes	Custom HTML
16	Tax Information	Tax Information	Tell about information related to the 1098T	Yes	Yes	Custom HTML
17	Financial Aid Offered	Financial Aid Offered	Information about school and outside scholarships	Yes?		
18	Required Documents	Required Documents	????? (related to financial aid, just says accept your aid on	Yes	No	
19	Student Account Documents	FAQ - Traditional Undergrad Studen	Student Financial Services FAQ for Undergrads	No	Yes	Custom HTML
20	Student Account Documents	FAQ - Graduate and Adult Professio	Student Financial Services FAQ for Grad and Adult Professi	No	Yes	Custom HTML
21	Student Account Documents	Financial Responsibility Statement	Probably legal reasons (don't drop out and not pay for clas	No	Yes	Custom HTML
22	Add/Drop Courses	Add/Drop Courses	Allows students to register for and drop classes	Yes	No	Anthology Student
23	Add/Drop Courses	Your Schedule (Registered)*	Schedule for registered classes	Yes	No	
24	Course Evaluation	Course Evaluation	Post-Class Assessment	No	Yes	External Link w/ SSO

Figure 1 - Sample from the Portal Inventory

In addition, three more columns stand at the end of the sheet. One is a statement on the feature that confirms or denies if a custom web part must be created to have access to this feature on the Anthology student portal. The second is the source of data for the information on the portal, as they are pulled from a variety of sources, and many must be transitioned to new sources going forward. The third category entails important additional

information and notes on these categories that might prove important. These include statements on the documentation of the new portal, details surrounding the current portal, and includes links to further documentation that has been deemed relevant.

Loadsheet Preparation

As the transition of the Denali Project continues the preservation of historical data is an important aspect that has required a lot of work. One example involved faculty loadsheets that track the workload of professors. These needed to be accessed for current tax records, and in a way that was timely and legible. The work on these loadsheets was overseen by staff member David Stillman, who advised on the execution of the project as well as setting up the required circumstances for the work to be possible. A compiled document of information from these loadsheets was created using a series of lookups and formulas to combine and extract data.

Loadsheet Execution

One such lookup used was VLOOKUP, which traces data over many cells in these sheets under certain parameters. (VLOOKUP In Excel) The data in the master sheet was divided into six primary categories. The “Full-Time Faculty” row contained the names of the teachers in question, while the “Faculty ID” section contained the ID numbers of the teachers. The following rows were “Overload Hours,” “Non-Teaching Hours,” “Teaching Hours,” and “Location.” Once the values for these headers had been calculated or searched, they were linked in a “master” sheet that held the total data. The “Location” row contained the department under which the information was categorized and was added in post as an additional piece of context.

Notes on the Loadsheets

There were also a few notes added for potential mistakes in the data or other strange circumstances that may have affected the data. Once this data had been collected it was presented in a series of meetings discussing formatting options and preferences to ensure that the data collected was readily accessible to those who needed it and collected accurately. After a number of gatherings, the final list was completed and submitted.

▼ fx					
A	B	C	D	E	F
Full Time Faculty	Faculty ID	Overload Hours	Non-Teaching Hours	Teaching Hours	Location
Eisner, Byleth	111111	18	24	24	FE3H

Figure 2 – Sample Generic Master Loadsheets

Conclusion

In the transition from NNU’s current student database to the replacement much work behind the scenes is being done by the Denali team. Documenting the student portal and comparing it to the replacement and creating a master sheet for compiled information from the loadsheets were just two of the many jobs that are being done to ensure the smooth transition of NNU’s current student database and portal host to its replacement. Over the course of this project much was learned about creating meetings, university culture, performing interviews, and more. The work of the staff cannot be overstated, and the opportunity provided offered many chances to learn more about the industry. The Denali team has had a number of interns over the course of its existence, and it offers each a unique experience to learn and grow while assisting in the completion of it’s ultimate goal of continuing the education offered by Northwest Nazarene University.

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