

M4-Prototype of MyStatus

Prototyping Strategy

The prototyping strategy I adopted for this stage is high fidelity prototype. I made the wireframes and graphics through PowerPoint in the previous stage – the design. Then I transferred the graphics into the digital interactive prototype using Invision so that users will be able to work through the task without external instructions.

In order to justify the approach I used, I plan to use the following methods in my next stage. First, the users will need to work on the tasks through my prototype. Through the process, I will ask users to perform the tasks themselves using think out loud technique (Dix, Finlay, Abowd, & Beale, 2007) to speak out what they are thinking using my prototype. In this way, I will be able to know if my prototype is presentable to show the features of the design. Also, users can give me feedback on whether there are things to be improved for the website.

Besides the think aloud technique, I will also let the users to answer some survey questions in order to evaluate my prototype. I will adopt measurement of System Usability Scale (SUS) (Sauro, 2011), a simple, ten-item attitude Likert scale giving a global view of subjective assessments of usability, and Net Promoter Score (Garrity, 2010), a management tool that can be used to gauge the loyalty of a firm's customer relationships. Through usability testing, I will analyze data extracted from the survey to know the statistical results of how effective of the prototype is.

Prototype Description

Prototype link: <https://projects.invisionapp.com/share/VU6CATMTP#/screens>

The prototype will have three main features. 1) Check the overall graduation status such as graduation application status, requirements to take final exam and final graduation checks; 2) Check the graduation application status; 3) Check POS form and make changes.

The persona used in the design is for Abby Brown, who is a M.S. student pursuing concurrent majors of Industrial Engineering and Human Computer Interaction. She plans to graduate in Spring 2016 for both of her majors. She has already finished her final exam for Industrial Engineering but she hasn't applied for graduation and requested the final oral exam for Human Computer Interaction major. Therefore, she wants to check her POS form to see if it's already completed. Then she needs to apply for graduation.

- 1) She logs in to her MyStatus page (Figure 1). The first page is her first major with her program summary listed. Buttons at the top show yellow when it is selected.

ACCESSPLUS
About | Logout

JOHN STATE UNIVERSITY

Home Student Employee Business

Account/ID-Bill
Address Change
Admissions
Campus Dining
Campus Housing
Campus Org Events
Class Registration
Class Schedule
Current Student Info
CyCash
Degree Audit
Direct Deposit
Emergency Contact
Enrollment Cert
Financial Aid
Gift Certificate
Grad Student Status
Grades&Transcripts
Graduation
Health Insurance
ISU Alert
Mapworks
Parking Division
Phone/Data Service
Residence Contract
Student Health Ctr
Student Job Board
Tax Info (1098)
Third Party Access
Votes and Surveys
Web Based Training

Grad Student Status
Record Found

Enter keyword

Graduate Student Status
Abby Brown

Alerts: None

Career Development Tools
Professional Development
Individual development Plan
ISU Career Services

Degree 1 Degree 2

Summary

Major: Industrial Engineering
Department: Industrial and Manufacturing Systems Engineering
Degree Currently sought: Master of Science
Thesis: Required
Credits Earned in Grad. Status: 44.00
Graduation Application: Spring 2016

Program of Study and Committee

My POSC Form My Program Audit

Major Professor: xxx
Committee member: xxx
Committee member: xxx

Required to apply for graduation
Required to take final exam
Final graduation checks

Figure 1 MyStatus Page

- 2) She can hover over the status buttons at the bottom of the page to check the status (Figure 2)

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JOHN STATE UNIVERSITY

Home Student Employee Business

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Campus Housing
Campus Org Events
Class Registration
Class Schedule
Current Student Info
CyCash
Degree Audit
Direct Deposit
Emergency Contact
Enrollment Cert
Financial Aid
Gift Certificate
Grad Student Status
Grades&Transcripts
Graduation
Health Insurance
ISU Alert
Mapworks
Parking Division
Phone/Data Service
Residence Contract
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Final graduation checks

Status: OK
Admission Type: OK-Full
GPA: OK-3.85
Met English Requirement: OK-Pass
POSC Approved: OK-Approved June 2014
Graduation Application Submitted: OK-Spring 2016

Check Graduation Status

The image displays two screenshots of the ACCESSPLUS Graduate Student Status page for Abby Brown. The page is titled "Graduate Student Status" and "Abby Brown". It includes a sidebar with navigation links, a top navigation bar, and a main content area with sections for Summary, Program of Study and Committee, and a list of graduation checks.

Top Navigation Bar: ACCESSPLUS, About | Logout, Home, Student, Employee, Business.

Left Sidebar: Account/ID Bill, Address Change, Admissions, Campus Dining, Campus Housing, Campus Org Events, Class Registration, Class Schedule, Current Student Info, CyCash, Degree Audit, Direct Deposit, Emergency Contact, Enrollment Cert, Financial Aid, Gift Certificate, Grad Student Status, Graduation, Health Insurance, ISSU Alert, Mapworks, Parking Division, Phone/Data Service, Residence Contract, Student Health Ctr, Student Job Board, Tax Info (1098), Third Party Access, Votes and Surveys, Web Based Training.

Graduate Student Status: Abby Brown

Alerts: None

Career Development Tools: Professional Development, Individual development Plan, SUJ Career Services

Degree Selection: Degree 1, Degree 2

Summary:

- Major: Industrial Engineering
- Department: Industrial and Manufacturing Systems Engineering
- Degree Currently sought: Master of Science
- Thesis: Required
- Credits Earned in Grad. Status: 44.00
- Graduation Application: Spring 2016

Program of Study and Committee:

- My POSC Form
- My Program Audit
- Major Professor: xxx
- Committee member: xxx
- Committee member: xxx

Graduation Checks:

- Required to apply for graduation: ☒
- Required to take final exam: ☒
- Final graduation checks: ☐

Check Status Details:

- GPA of at least 3.00: OK-3.85
- Currently Registered: YES
- Incompletes, Non Reports & Fs on Transcript: OK
- C or above on POSC: OK
- Completed or Enrolled in POSC Courses: OK
- No Overage Courses on POSC: OK
- POSC Approved: OK-Approved June 2014
- Final Oral Exam Scheduled: OK

Second Screenshot (Check Status):

Graduate Student Status: Abby Brown

Alerts: None

Career Development Tools: Professional Development, Individual development Plan, SUJ Career Services

Degree Selection: Degree 1, Degree 2

Summary:

- Major: Industrial Engineering
- Department: Industrial and Manufacturing Systems Engineering
- Degree Currently sought: Master of Science
- Thesis: Required
- Credits Earned in Grad. Status: 44.00
- Graduation Application: Spring 2016

Program of Study and Committee:

- My POSC Form
- My Program Audit
- Major Professor: xxx
- Committee member: xxx
- Committee member: xxx

Graduation Checks:

- Required to apply for graduation: ☒
- Required to take final exam: ☒
- Final graduation checks: ☐

Check Status Details:


- Report of Final Oral: NO
- Conditions on Final Oral Removed: OK
- Graduation Approval Form Submitted: NO

Figure 2 Check status

- 3) She can check her second major by clicking on button 'Degree 2'. The second major page can be seen in Figure 3.

The screenshot displays the 'Graduate Student Status' page for Abby Brown. The page is part of the ACCESSPLUS system at Iowa State University. A sidebar on the left lists various services like Account/ID-Bill, Address Change, and Admissions. The main content area has a red header with 'Grad Student Status' and 'Second Found'. Below this, there are tabs for 'Degree 1' and 'Degree 2', with 'Degree 2' being the active tab. A green checkmark icon indicates 'Alerts: None'. To the right, there are links for 'Career Development Tools' including Professional Development, Individual development Plan, and BU Career Services. The page is divided into two main sections: 'Summary' and 'Program of Study and Committee'. The 'Summary' section lists: Major: Human Computer Interaction, Department: Industrial and Manufacturing Systems Engineering, Degree Currently sought: Master of Science, Thesis: Not Required, Credits Earned in Grad. Status: 44.00, and Graduation Application: Spring 2016. The 'Program of Study and Committee' section has buttons for 'My POSC Form' and 'My Program Audit', and lists Major Professor: xxx and Committee member: xxx. At the bottom, there are three buttons with red exclamation mark icons, indicating required actions: 'Required to apply for graduation', 'Required to take final exam', and 'Final graduation checks'.

Figure 3 Second Major Page

- 4) When she is checking her second major information. She finds that she hasn't applied for graduation as well as requested the oral final exam, since she sees icon  at the action button at the bottom, which means the action is needed. She wants to check what is needed. Abby hovers on the first button 'Required to apply for graduation' to check the graduation status (Figure 4), and apply for graduation.

The screenshot shows the ACCESSPLUS web application interface. The top navigation bar includes links for Home, Student, Employee, and Business. The left sidebar lists various services like Account/U-Bill, Address Change, Admissions, etc. The main content area is titled "Graduate Student Status" for Abby Brown. It features tabs for Degree 1 and Degree 2. A summary section lists details: Major: Human Computer Interaction, Department: Industrial and Manufacturing Systems Engineering, Degree Currently sought: Master of Science, Thesis: Not Required, Credits Earned in Grad. Status: 44.00, and Graduation Application: Spring 2016. A program of study and committee section includes links for My POSC Form and My Program Audit, and lists Major Professor: xxx and Committee member: xxx. A status check section on the left shows requirements: Required to apply for graduation, Required to take final exam, and Final graduation checks. A central box displays the status of these requirements: Status: OK, Admission Type: OK-Full, GPA: OK-3.85, Met English Requirement: OK-Pass, POSC Approved: OK-Approved Dec 2015, and Graduation Application Submitted: NO. A large yellow button labeled "Apply for Graduation" is on the right.

Figure 4 Check Graduation Status

5) She will be able to select the semester she wants to graduate Figure 5.

The screenshot shows the "Application for Graduation" page in the ACCESSPLUS system. The page has a yellow header bar with the title "Application for Graduation". Below the header, there is a dropdown menu labeled "Select a term" and a yellow "Submit" button. The left sidebar and top navigation bar are consistent with the previous figure.

Figure 5 Select semester to graduate

6) Abby selected the semester she wanted to graduate and filled out the application form. After she submitted her application, she can easily check its status, change its information and withdraw it (Figure 6).

The screenshot shows a web application interface for Iowa State University. At the top, there is a navigation bar with tabs for 'Home', 'Student' (which is active), 'Employee', 'Faculty/Adviser', and 'uBusiness'. Below this is a red header bar containing the text 'Grad Stndt Status' on the left, a search bar with the placeholder 'Enter keyword' in the center, and links for 'Contact', 'Print', 'Help', and 'Hide Tabs' on the right. The main content area has a yellow background and displays the title 'Application for Graduation' in bold. Below the title, there is a yellow box labeled 'Masters Spring 2016'. Underneath this box are two buttons: 'Withdraw Application' and 'Edit Application'. A thin yellow horizontal line is positioned below the buttons.

Figure 6 Check Application Status

- 7) After applying for graduation, she wants to check whether her POS form has already met the requirements. By clicking on POS form button, she got to see her POS form. Her POS Form has already been approved, so she just wanted to check it and see whether she needs to modify it. The POS Form can be seen in Figure 7.

Figure 7 POS Form

The situation for different students varies significantly. Thus, the prototype doesn't cover every aspect of graduate status as well as special requirements for specific majors. The persona used for this prototype is the most typical one so that it would be efficient to test the effectiveness of the redesigned website. In the meanwhile, the prototype doesn't have the feature of modifying the application form and POS form. Since this project doesn't take care of the back end functionality, it won't provide modification of these forms and check whether they meet the requirements as well. In addition, the way of modifying the form is the same to the current form so that it doesn't provide that feature.

Reflection

I think the process of building the prototype is a useful process for refining my design. When I did interaction for features and test them within my prototype, I need to think twice whether the design is appropriate and to make sure functions flow smoothly. I think it is a good experience for me in the future project.

Building the prototype is a great way to refine my design in terms of consistency, functioning well and ease of use. Prototyping actually is a self-test process before we display our work to our users or in evaluations.

At the same time, during this project, I learned a new prototyping tool invision. Compared with Axure or other similar prototyping tools, it is more easy to insert graphics directly and add hotspots to make interactions. It broadens my idea of building prototypes. However, at the same time, invision doesn't provide much capability to create single widgets to work separately and there isn't much capability to make dynamic panels or set variables as well. Thus, in my future design project, it gives me more flexibility to choose prototyping tools based on the goal, time and other resources of the project.

Reference

Dix, A., Finlay, J., Abowd, G. D., & Beale, R. (2007). *Human-Computer Interaction* (3rd ed.). Harlow: Prentice Hall.

Garrity, J. (2010). Drive Customer Loyalty with Net Promoter Score. *ABA Bank Marketing*, 42(9), 30–33. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&db=buh&AN=55381407&lang=de&site=ehost-live>

Sauro, J. (2011). Measuring Usability with the System Usability Scale (SUS). Retrieved from <http://www.measuringu.com/sus.php>