

**DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING
THE UNIVERSITY OF TEXAS AT ARLINGTON**

**SYSTEM REQUIREMENTS SPECIFICATION
CSE 4316: SENIOR DESIGN I
SUMMER 2019**



**TEAM MINTS
UTA ADVISING**

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1 PRODUCT CONCEPT

This section describes the purpose, use and intended user audience for the Team Mints Advising Scheduler. The system is a dynamic web based application intended for students and advisors. The web application makes it easier for both the students and the advisor to schedule the advising appointment. Student are able to enter all their details and the algorithm will show the wait times before they can be scheduled.

1.1 PURPOSE AND USE

Mint Advising Scheduler check in all the students who are waiting to get advised by the advisors at CSE Department at UT Arlington. The system then show the estimated wait times before they could be advised by the advisors. Student should enter their first name, last name and their email and with that they should be able to login to the system. Then the advisors get the list of students waiting to get advised.

1.2 INTENDED AUDIENCE

The web application is for saving the time of the advisors. During the peak advising hours the advisors and the students both can use the application. Initially we are planning to limit the audiences to the students who are visiting the CSE Department to get advised. We have plan in future to increase the capability for every other departments of UT Arlington.

2 PRODUCT DESCRIPTION

The web application will have basically two User Interfaces. One interface is allocated for students and another are for the advisors. On the student interface, students are able to enter the First Name, Last Name, email address and they even can choose their desired major. Students are also able to find the degree plans, flow charts of every CSE majors according to the year. After student enters all the details they will be shown the estimated wait times. That way they can know the time they need to wait before they got advised. On the admin side the advisors can see all the name of the students and they can retrieve the student information. They can check off students once they are done.

2.1 FEATURES & FUNCTIONS

The product is a web based application and we are hosting the application in AWS.

2.2 EXTERNAL INPUTS & OUTPUTS

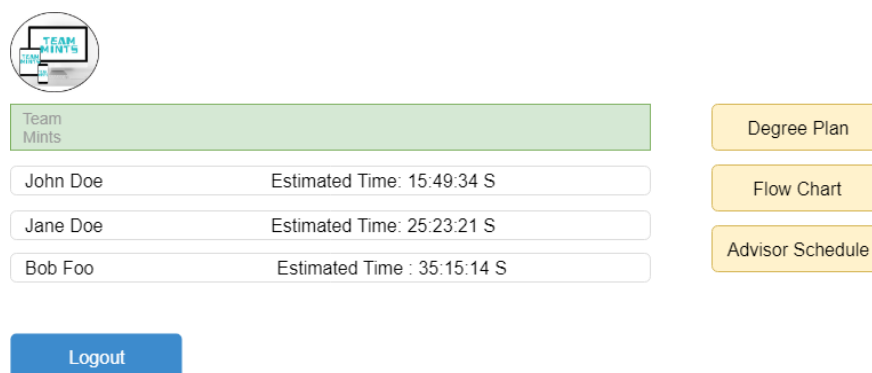
Since this is a web based application the input to the program is going to be all the data entered by the students while the output is the wait times that the application displays on the student dashboard.

2.3 PRODUCT INTERFACES



The image shows a student login interface. At the top left is a circular logo with a laptop and the text 'TEAM MINTS'. Below the logo is a green header bar with the text 'Team Mints'. Underneath are three white input fields: 'First Name', 'Last Name', and 'Email Address:'. Below the input fields is a blue button with the text 'Save & Login'.

Figure 1: Student Login View.



The image shows a student time interface. At the top left is a circular logo with a laptop and the text 'TEAM MINTS'. Below the logo is a green header bar with the text 'Team Mints'. Underneath is a table with three rows of student information and estimated wait times. To the right of the table are three yellow buttons: 'Degree Plan', 'Flow Chart', and 'Advisor Schedule'. Below the table is a blue button with the text 'Logout'.

Student Name	Estimated Time
John Doe	15:49:34 S
Jane Doe	25:23:21 S
Bob Foo	35:15:14 S

Figure 2: Student time Interface.

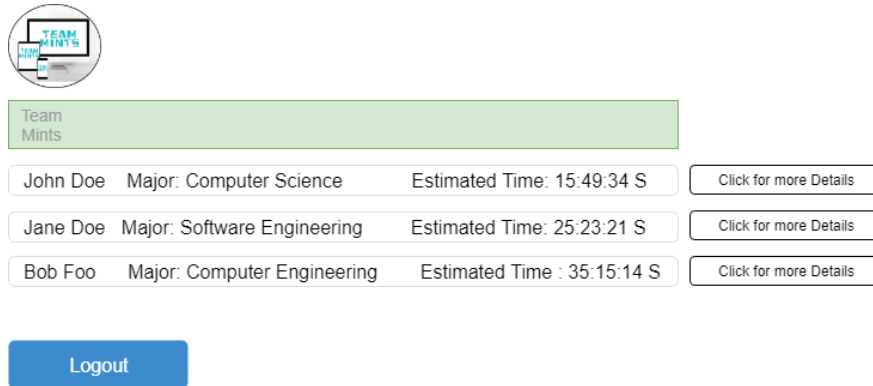


Figure 3: Estimated time View.

3 CUSTOMER REQUIREMENTS

In this project, we are working to make a dynamic web based application, "UTA ADVISING" which will help CSE department; for students to get into line for the advising instead of waiting for hours to get advised for upcoming semester and advisors, as an admin can check who is next on line to get advised and advisors as an admin can see who's on the line and able to clear once advised.

3.1 STUDENT SIGN UP

3.1.1 DESCRIPTION

Student will sign up using their email address or phone number. Once the account is created they can login to their account for further use.

3.1.2 SOURCE

The source of the requirement is CSE Senior Design project specifications.

3.1.3 CONSTRAINTS

The credentials from mymav account cannot be used.

3.1.4 STANDARDS

CSE Advising Department.

3.1.5 PRIORITY

The priority of this requirement is critical relative to other specified requirements.

3.2 ADVISOR SIGN UP

3.2.1 DESCRIPTION

Advisors as admin will create their own account and login using the information later.

3.2.2 SOURCE

The source of the requirement is CSE Senior Design project specifications.

3.2.3 CONSTRAINTS

The credentials from mymav account cannot be used.

3.2.4 STANDARDS

CSE Advising Department.

3.2.5 PRIORITY

The priority of this requirement is critical relative to other specified requirements.

3.3 GET ON LINE FOR STUDENTS

3.3.1 DESCRIPTION

Once the account is created by student one can login to their account and get on line line respective to their needs:

- If the student need to see Dr. Barasch, one should be able to get onto the queue for her.
- If one need to see faculty advisors, one should be able to get onto the queue for faculty advisor.
- If there is no specification of advisor, one will get onto the general queue.

3.3.2 SOURCE

The source of the requirement is CSE Senior Design project specifications.

3.3.3 CONSTRAINTS

Students have time limitation to make an appointment i.e. they are able to set up the advising appointment only before 2-3 hours.

3.3.4 STANDARDS

CSE Advising Department.

3.3.5 PRIORITY

The priority of this requirement is critical relative to other specified requirements.

3.4 ADMIN LOGIN

3.4.1 DESCRIPTION

When the advisors login to their account, they will see the list of the students, who are on queue to get advised. Advisors will be able to mark the person who is being advised and clear the student after advising them.

3.4.2 SOURCE

The source of the requirement is CSE Senior Design project specifications.

3.4.3 CONSTRAINTS

Limitation on the number of student to be advised per day or per advising session.

3.4.4 STANDARDS

CSE Advising Department.

3.4.5 PRIORITY

The priority of this requirement is critical relative to other specified requirements.

3.5 STUDENT PORTAL FUNCTIONALITY

3.5.1 DESCRIPTION

When students login to their account, beside getting on to line for advising, they can select the classes(bases on their majors) they have taken already within the university or transferred from different institution and the classes they are taking in current semester.

3.5.2 SOURCE

The source of the requirement is CSE Senior Design project specifications.

3.5.3 CONSTRAINTS

Student should be honest about their class that they have already taken and transferred.

3.5.4 STANDARDS

CSE Advising Department.

3.5.5 PRIORITY

The priority of this requirement is high relative to other specified requirements.

3.6 FAQs AND HYPERLINKS

3.6.1 DESCRIPTION

There will be answers for some of the frequently asked questions and hyperlinks for the forms like class drop form, grade forgiveness form, add/swap classes form in printable form. For this, there is no compulsion for logging into their account.

3.6.2 SOURCE

The source of the requirement is CSE Senior Design project specifications.

3.6.3 CONSTRAINTS

Some of the queries that student have might not be on the FAQs that will be on website, for this one should contact the respective person.

3.6.4 STANDARDS

N/A

3.6.5 PRIORITY

The priority of this requirement is high relative to other specified requirements.

4 PACKAGING REQUIREMENTS

Mints advising scheduler is a web based software application. We are planning to deploy the war/jar files to AWS. Both the students and advisor will have their own portals from where they can login to their individual interfaces. All the end users can access the application from their favorite browsers so the individual installation to a particular device is not necessary.

4.1 DELIVERY METHOD

Internet devices and browsers are needed to run this web application.

4.1.1 DESCRIPTION

To access the application the most important thing that a user needs is a device from where they can access their favorite browsers. The device could be anything from smartphones to laptops, computers and even the smart watches. Users should login to the application and enjoy all the functionalities that the application have to offer.

4.1.2 SOURCE

N/A

4.1.3 CONSTRAINTS

There is not any constraint known as of now.

4.1.4 STANDARDS

N/A

4.1.5 PRIORITY

Critical

5 PERFORMANCE REQUIREMENTS

UTA advising being a complete software product, it's performance will depend on the connection speed of where the website is being accessed from. In this section of the document we will include the time estimated to get to the page and sign-up and receive the notification as they get close to queue.

Task	Time estimated
Access the Page	10 Seconds
Signup	1.5 Minutes
Login	30 Seconds
Get Notified	Depends on Appointment set time

5.1 NOTIFICATION SYSTEM

5.1.1 DESCRIPTION

The user shall receive notification of estimated time remaining for appointment as they get closer to the queue. This requirement focuses the tasks to be done after setting an appointment. When there is a large queue the software will estimate the wait time for users so that they do not need to wait outside the advisor's office. There will also be an added functionality where the user can push themselves in the back of the queue if it's their time to advised but they are running late because of any reason. Also this can be done only three times, after pushing back in the queue for three times if they are still not able to make it then the appointment has to be re-scheduled and the user will be sent at the end of queue.

5.1.2 SOURCE

Discussion with our advisor and professor Conley.

5.1.3 CONSTRAINTS

Amount of time each student takes for advising may vary which makes it difficult to calculate exact estimated time.

If any advisor decide to take breaks in between appointments, it would be difficult to track for how long.

5.1.4 STANDARDS

N/A

5.1.5 PRIORITY

Medium

5.2 STOP ACCEPTING APPOINTMENTS

5.2.1 DESCRIPTION

Once the number of users exceed to a certain number set by advisors for that day or if any one tries to set up an appoint after school hours or not during advising hours, the system will notify the user that the appointment can not be set and they have to chose a different time. Advisors will be the admins so they can always change how many users they want the system to handle.

5.2.2 SOURCE

Discussion with team members.

5.2.3 CONSTRAINTS

N/A

5.2.4 STANDARDS

N/A

5.2.5 PRIORITY

Medium

5.3 SIMPLE INTERFACE

5.3.1 DESCRIPTION

The system should be very simple and easy to navigate so that no user will experience delay looking for things they want. Every categories will be up front. Drop down menu will be removed from where ever it is not required. The web app should not open a new tab for each selection made by the user.

5.3.2 SOURCE

Discussion with team members.

5.3.3 CONSTRAINTS

Preference of all the user will not be the same.

5.3.4 STANDARDS

N/A

5.3.5 PRIORITY

High

6 SAFETY REQUIREMENTS

We are building a dynamic web application called "UTA ADVISING", and safety will be the main concern. In order to maintain the safety we have to follow some rules sets by group members and professors. Laboratory equipment lockout, data protection and privacy are important safety aspects of our project.

6.1 DATA PROTECTION

6.1.1 DESCRIPTION

The data system shall able to maintain and secure the data that will be collected along the run.

6.1.2 SOURCE

Standard Protocol

6.1.3 CONSTRAINTS

Completely dependent in USERS and ADMINS consent.

6.1.4 STANDARDS

It should maintain the standard sets by group and admin panel.

6.1.5 PRIORITY

Critical

6.2 LABORATORY EQUIPMENT

6.2.1 DESCRIPTION

Any equipment provided during the development of this project shall be used in accordance with group and admin panel. Any equipment using on this project needs the lockout should be executed by instructor.

6.2.2 SOURCE

CSE Senior Design laboratory policy and CSE advising

6.2.3 CONSTRAINTS

Equipment usage, due to lock removal policies will be limited to availability of the instructor.

6.2.4 STANDARDS

CSE advising department

6.2.5 PRIORITY

Critical

6.3 UTA INFORMATION INTEGRITY

6.3.1 DESCRIPTION

The website shall not use any information from the student that reflects the UTA's mymav information from the student including UTA Id number, UTA's mymav email or any such related that could reflect mymav information of the student.

6.3.2 SOURCE

CSE Faculty Advisors

6.3.3 CONSTRAINTS

MyMav server information could not be accessed.

6.3.4 STANDARDS

UTA Policy

6.3.5 PRIORITY

Critical

6.4 STUDENT OPT-IN

6.4.1 DESCRIPTION

The student shall use their UTA email or UTA Id number if they are comfortable about it.

6.4.2 SOURCE

CSE Faculty Advisor

6.4.3 CONSTRAINTS

It has many limitations on what student can share despite their wish.

6.4.4 STANDARDS

UTA Policy

6.4.5 PRIORITY

Critical

7 MAINTENANCE & SUPPORT REQUIREMENTS

The program will be designed in such a way that any changes that need to be made can be done by the advisors as per their need. Anything that needs to be changed or updated in the back-end will be done by our developer team as per the needs. Since our program does not need any specific hardware to run, every maintenance will be software based that can be done remotely. There will be a suggestions tab for students to give suggestions on how the system can be made better in future. The website will be easy and simple to use so any user will be able to navigate through the page.

7.1 SUGGESTIONS TAB

7.1.1 DESCRIPTION

There will be a suggestion tab where the students can tell us how to make the system. The advisors will be able to contact us directly in case of any errors which our developers will fix. Any updates needed for the websites will be prioritized as top.

7.1.2 SOURCE

Team discussion

7.1.3 CONSTRAINTS

Availability of the developer team for rapid maintenance.

7.1.4 STANDARDS

N/A

7.1.5 PRIORITY

High

7.2 PRODUCT IMPROVEMENT

7.2.1 DESCRIPTION

If any additional functionality are requested by the User or Advisors, we will have the change request form in our electronic version of user manual which can be filled by advisors and send directly to our team contact point. Changes will be carries out in reasonable amount of time depending on the priority and list of task to be accomplished.

7.2.2 SOURCE

Team discussion

7.2.3 CONSTRAINTS

Team might be working on building some other functionality more important than requested.

7.2.4 STANDARDS

N/A

7.2.5 PRIORITY

Medium

8 OTHER REQUIREMENTS

8.1 ADVISOR PREFERENCE

8.1.1 DESCRIPTION

The student shall be able to pick the advisor they want to see if the advisor is available.

8.1.2 SOURCE

CSE Faculty Advisor

8.1.3 CONSTRAINTS

The advisor student prefers might not be always available.

8.1.4 STANDARDS

N/A

8.1.5 PRIORITY

Low

8.2 AN INFORMATION VALIDATION SYSTEM

8.2.1 DESCRIPTION

The information provided by the information shall be validated by use of some system.

8.2.2 SOURCE

Advisor Recommendation

8.2.3 CONSTRAINTS

Since there is no way to check the validity of information, ad visors confirming the information remains the options.

8.2.4 STANDARDS

N/A

8.2.5 PRIORITY

Low

8.3 MULTIPLE CHECK-IN REDUNDANCY

8.3.1 DESCRIPTION

Some system shall be implemented to reduce the chance of multiple check in by the students to get in line faster.

8.3.2 SOURCE

Group Discussion

8.3.3 CONSTRAINTS

As long as we do not have official information, its hard to confirm individual.

8.3.4 STANDARDS

N/A

8.3.5 PRIORITY

Low

8.4 ADVISING NEED OPTIMIZATION

8.4.1 DESCRIPTION

The recommendation of advisor selection shall be assisted to find the correct advisor based on student needs.

8.4.2 SOURCE

CSE Faculty Advisor

8.4.3 CONSTRAINTS

The student might not be aware for what they are being advised on.

8.4.4 STANDARDS

N/A

8.4.5 PRIORITY

Medium

8.5 PUSH BACK IN QUEUE

8.5.1 DESCRIPTION

The student shall be able to push themselves back in the queue if needed.

8.5.2 SOURCE

Group Discussion.

8.5.3 CONSTRAINTS

The optimization of how to push back without affecting others on line might be trouble.

8.5.4 STANDARDS

N/A

8.5.5 PRIORITY

Medium

9 FUTURE ITEMS

9.1 MULTIPLE CHECK-IN REDUNDANCY

9.1.1 DESCRIPTION

Some system shall be implemented to reduce the chance of multiple check in by the students to get in line faster.

9.1.2 SOURCE

Group Discussion

9.1.3 CONSTRAINTS

As long as we do not have official information, its hard to confirm individual.

9.1.4 STANDARDS

N/A

9.1.5 PRIORITY

Low

9.2 A INFORMATION VALIDATION SYSTEM

9.2.1 DESCRIPTION

The information provided by the information shall be validated by use of some system.

9.2.2 SOURCE

Advisor Recommendation

9.2.3 CONSTRAINTS

Since there is no way to check the validity of information, ad visors confirming the information remains the options.

9.2.4 STANDARDS

N/A

9.2.5 PRIORITY

Low

9.3 ADVISOR PREFERENCE

9.3.1 DESCRIPTION

The student shall be able to pick the advisor they want to see if the advisor is available.

9.3.2 SOURCE

CSE Faculty Advisor

9.3.3 CONSTRAINTS

The advisor student prefers might not be always available.

9.3.4 STANDARDS

N/A

9.3.5 PRIORITY

Low

9.4 CHECK-IN KIOSK

9.4.1 DESCRIPTION

The kiosk shall be installed for the advising check-in.

9.4.2 SOURCE

CSE Staff Advisor

9.4.3 CONSTRAINTS

Budget and consent from school.

9.4.4 STANDARDS

N/A

9.4.5 PRIORITY

Low

REFERENCES