

Design Support Documents

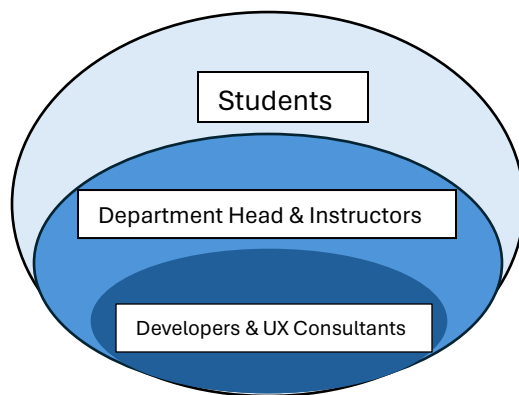
App: CS Scheduling App

Scientist: Linda Ott

Team Members: (Developers) Alex McWilliam, Brian Conn, Collin Attard, Edward Fairchild, Kolby Swanson, Tyler Poirier, Will Sisson, **(UX Consultants)** Thanuja Maddali, Nikhil Nandala, Satyanarayana Velamala

Stakeholder Analysis

Onion Model of Stakeholder



Primary Stakeholders:

Developers

UX Consultants

Secondary stakeholders:

Department Head

Computer Science Instructors

Tertiary stakeholders:

Students

Description of Each Stakeholder

Developers

The CS Scheduling App's technical implementation depends heavily on developers. It is their duty to design, code, test, and maintain the software.

UX Consultants

UX Consultants are responsible for overseeing the entire CS Scheduling App project. They play a key role in planning, executing, and closing the project, ensuring it meets its goals within the defined scope, time, and budget constraints.

Department Head

They are essential in decision-making, resource distribution, and guaranteeing that the department's purposes match the institution's objectives.

Computer Science Instructors

Computer science instructors responsible for creating and managing courses.

Students

Accessing semester schedules and interacting with instructors.

Stakeholder	Goal	Influence
Developers	Successful App Development	High
UX Consultants	Ensuring the project meets user requirements	Medium
Department Head	Efficient Course Scheduling	High
Computer Science Instructors	Input Course and room Preferences	Medium
Student	View semester Schedule	Low

Personas

Primary Stakeholders

Computer Science Instructor - Prof. Thomas

Name : Prof. Thomas

Age: 40

Height: 5' 9"

Weight: 175 lbs.

Right-handed.

Technology Expertise: High

Experience: 10+ years of teaching computer science

Goals: Efficiently manage course schedules and materials.

Interactions with App: Intuitive course creation and scheduling tools and Ability to set flexible teaching schedules.

Computer Science Instructor - Prof. Alex

Name : Prof. Alex

Age: 35

Height: 6' 2"

Weight: 194 lbs.

Right-handed.

Technology Expertise: Moderate - High

Experience: 8 years of teaching and industry experience.

Goals: Streamline course management processes and foster a collaborative and inclusive learning environment

Interactions with App: Relies on the app to input detailed scheduling preferences and uses the app to receive real-time updates on course scheduling.

Secondary Stakeholders

Department Head - Dr. Emily

Name : Prof. Alex

Age: 50

Height: 5' 5"

Weight: 158 lbs.

Left-handed.

Technology Expertise: High

Experience: Extensive experience in academic leadership roles.

Goals: Oversee the successful operation of the Computer Science Department

Interactions with App: Uses the app to make informed decisions about resource allocation.

Student - Jessica

Name : Jessica

Age: 20

Height: 5' 8"

Weight: 165 lbs.

Right-handed.

Technology Expertise: Low

Major: Computer Science (Undergraduate)

Goals: Receive a quality education in computer science and stay informed about course schedules and program requirements.

Interactions with App: Utilizes the app to access course schedules and announcements.

Hierarchical Task Analysis:

1. Manage User Accounts

- Login to the system
- Change password
- Setup accounts for new users

2. Configure System Settings

- Select a term.
- Set up departments.
- Add buildings and rooms.
- Define default preferences.

3. Add New Users

- Add professors.
- Add office staff.
- Define user permissions.

4. Add Departments

- Display existing departments.
- Add a new department.
- Delete a department if needed.

5. Add Rooms

- Display existing rooms.
- Add a new room.
- Edit room details.
- Delete a room if needed.

6. Add Courses

- Display existing courses.
- Add a new course.
- Edit course details.
- Delete a course if needed.

7. Add Instructors

- Display existing instructors.
- Add a new instructor.
- Edit instructor details.
- Delete an instructor if needed.

8. Schedule Sections

- Display existing course sections.
- Assign instructors to sections.
- Allocate rooms to sections.
- Check for scheduling conflicts
- View and print schedules.

Summary of the Hierarchical Task Analysis

The CS Scheduling App's HTA lists key tasks users can create accounts and change their passwords starting with the login process. Users are guided through configuring settings, choosing terms, and interacting with the interface by the HTA. Managing permissions through the Utilities Menu is necessary for adding users. As part of safety precautions, secure system access permissions can be set specifically. Users can also add departments and rooms by entering the building name, room number, and capacity in this process. Managing these entities is made easier by the utility menu. Adding courses is a complex process that includes defining active and inactive courses as well as departmental preferences. Instructor preferences, availability, and limitations are integrated, with a focus on requirements such as projector requirements and computer lab access.

Appendix

In a detailed interview with the scientist on 01/24/2024, valuable insights were gathered to enhance the functionality of the Computer Science Scheduling App. The discussion covered various aspects, shedding light on crucial considerations for optimizing the app's features.

1. Past Instructors:
 - Records past course instructors
 - Helps recognize teaching patterns.
2. Room Requirements:
 - Considers specific room needs for courses.
 - Includes options for labs.
3. Group Activities:
 - Supports group activities in scheduling.
4. Archiving Past Years:
 - Archives scheduling data for reference.
5. Default Setting - Current Semester:
 - App defaults to the present semester.
 - Ensures immediate access to relevant info.
6. Time Constraints:
 - Streamlines scheduling for efficient time use.
7. Visibility of Constraints:
 - Ensuring visibility of any constraints imposed by courses or instructors for effective coordination.
8. Restricted TA Access:
 - Implementation of restricted access for Teaching Assistants to prevent unauthorized alterations.