

AI Powered Schedule Companion: User Needs and Requirements

SDDEC24-08:

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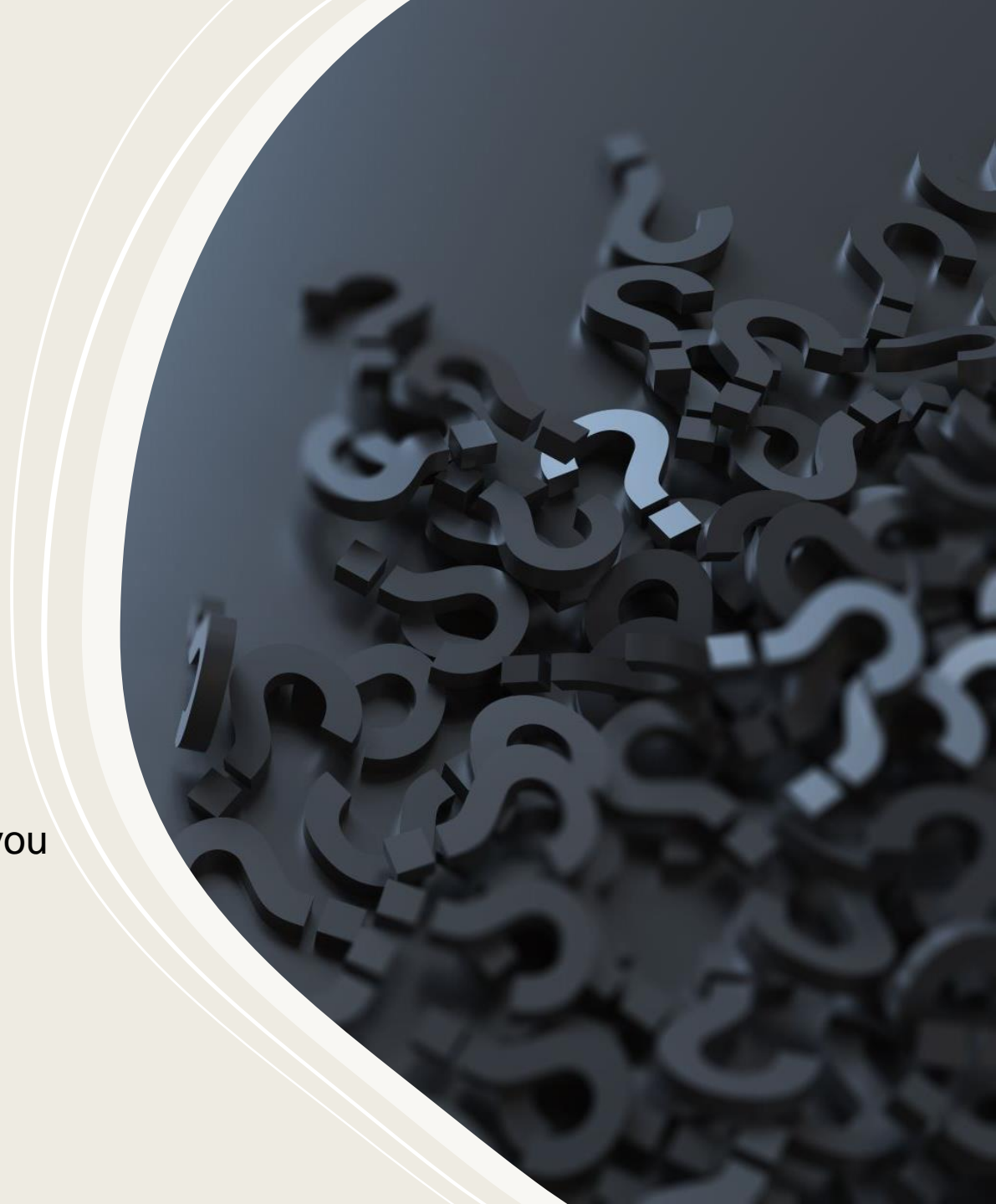
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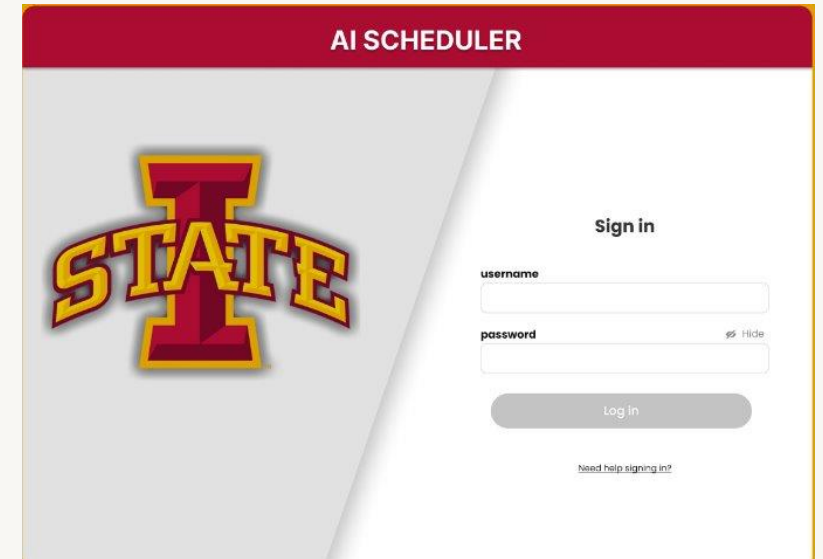
The Problem

- Many students have had trouble creating a schedule
 - Why? -> ISU's site for scheduling is not user friendly
 - Difficult for people to see what classes they need
- Why is that a big problem?
 - In order to attend, students need a schedule.
 - Infuriating students right off the bat is not a good way to attract more of them.
- A major issue with making a schedule is correlating what you need with what you are going to take.



The Solution

- AI Powered Schedule Companion
 - § Website/Application to aid in creating a semester schedule
 - § Uses ChatGPT-based AI
 - § User prompts allows AI to create the schedule



User Needs

- Generate class schedules
- Register for classes based on available times
- Make friendly for both students and advisors



Functional Requirements

- Front-end
 - Users can create an account
 - Allows generation of semester schedules via user input
 - Reveals class stats such as availability, professors, locations, and more
- Back-end
 - Has a database of users and student_info (user input)
- Uses ChatGPT
 - Takes in user input to generate schedules
 - Can take in documents (pdfs)
 - Uses existing ISU websites to support it



Resource Requirements

- Front-end
 - Next.JS 14.1
 - React/MUI
- Back-end
 - PostgreSQL
 - Terraform
- Hosting
 - Amazon Web Services (AWS)
 - Amplify (hosting)
 - Elastic Cloud Computing (EC2)
 - Amazon Relational Database (RDS)
 - Domain Name: isu-companion



Project Requirements

- Physical
 - Application will be hosted online and able to be accessed via website
- Aesthetic
 - Iowa State Themed
 - Primary Colors: Red, Yellow, White, Black
- User Experiential*
 - Sleek and simple user interfaces to reduce confusion

* Experiential: involving or based on experience and observation

Engineering Standards

- IEEE/ISO/IEC 29119-4-2021 - International Software test design techniques
- ISO/IEC 14519 : 1999 (IEEE Std 1003.5b) - Information technology--POSIX(TM) Ada Language Interfaces--Binding for System Application Program Interface (API)

Conclusion

- We will be making a website/application to create semester schedules using AI
- Users need a way to generate schedules as well as accommodate with their own schedules
- There are Functional, Resource, Physical, Aesthetic, and User Experiential Requirements

