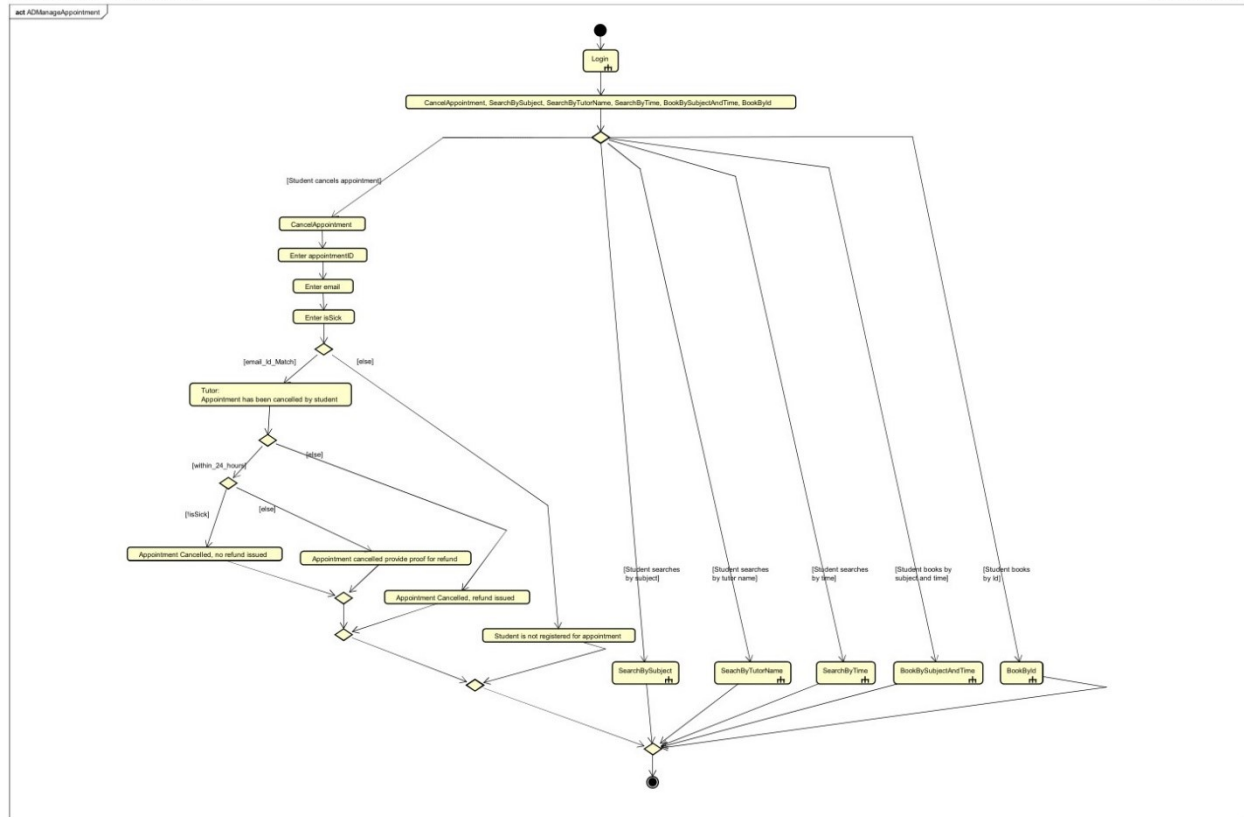


Activity Diagram

ADManageAppointment


2020/10/10



Persona Drafts

Reggie

Manager at Tutoring Centers of America



"My body is ready!"

Age: 45-55
Work: Manager
Family: Married
Location: Fourside, NY
Character: Driven

Goals

- Create the best STEM tutoring environment in America.
- Enlist the best tutors to assist students both on and offline.
- Provide accessible learning resources to as many students as possible.

Frustrations

- There are no effective bi-modal tutoring centers.
- Existing online tutoring systems are unintuitive, which makes it difficult to find talent that can effectively use those systems.
- In-person environments cannot support large numbers of one-on-one tutoring sessions with students.

Motivation

| | |
|-----------|-----|
| Incentive | 90% |
| Fear | 20% |
| Growth | 70% |
| Power | 80% |
| Social | 90% |

Personality

| | |
|-----------|------------|
| Introvert | Extrovert |
| Thinking | Feeling |
| Sensing | Intuition |
| Judging | Perceiving |

Bio

Reggie is a passionate manager at Tutoring Centers of America. He believes that every child should have access to tutoring resources so that children can grow up into their best selves through education. With a nose for talent, he is willing to use any worthy medium to work with tutors and provide the best supplemental learning material for students.

Cassandra

Tutor at Tutoring Centers of America



"I'll help take your mental math to the mental max!"

Age: 20-30

Work: Tutor

Family: Single

Location: Twoson, OR

Character: Enthusiastic

Personality



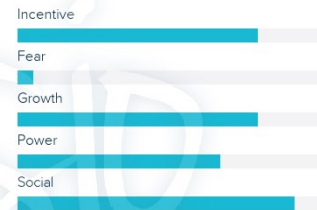
Goals

- Help students learn and succeed in class assignments.
- Create positive relationships between herself and students.
- Master a variety of subjects so that she can assist students in their academic goals.

Frustrations

- Living 30 minutes from the nearest physical tutoring center, she must often hurry to work in the morning.
- Not the most tech-savvy, she is not comfortable using the current online tutoring system at Tutoring Centers of America.
- She wishes that she can have more one-on-one sessions with students to ensure they are effectively engaging with the material.

Motivation



Bio

Cassandra is a bright sophomore university student that works part-time as a tutor for Tutoring Centers of America. She loves helping students in STEM, especially math and wants to make sure that they both understand and enjoy the material. She'll go to great lengths to ensure that each of her students reaches their full potential.

Billy

Student at Tutoring Centers of America



"All my RAM is dedicated towards Minecraft!"

Age: 10-16
Work: Student
Family: Single
Location: Onett, PA
Character: Timid

Goals

- Defeat the Ender Dragon without taking any damage.
- Become a video game developer.
- Get an A+ in Algebra

Motivation

| | |
|-----------|--|
| Incentive | |
| Fear | |
| Growth | |
| Power | |
| Social | |

Frustrations

- Creepers keep getting the jump on him.
- Tutoring websites are too difficult to navigate.
- Living 40 minutes away from the nearest tutoring center, he can't easily get help in Algebra.


Personality

| | |
|-----------|------------|
| Introvert | Extrovert |
| Thinking | Feeling |
| Sensing | Intuition |
| Judging | Perceiving |

Bio

Billy, an avid Minecraft gamer and aspiring game developer, is a student at Tutoring Centers of America who loves STEM, but finds certain classes confusing. He appreciates any help he can get since he knows it will help him in the future. He loves talking to others about video games, especially Minecraft.

Feedback from Ethan Miller on the Personas



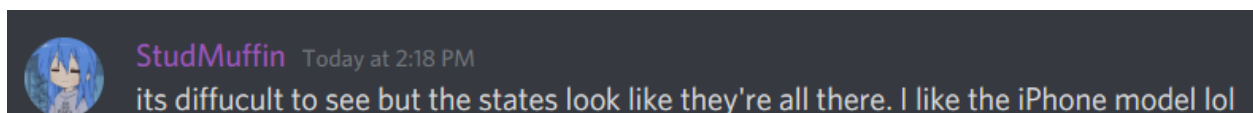
StudMuffin Today at 1:16 PM

I think those are super fit for the system, in terms of requirements im sure you're good to go. Im just tryna have fun with mine so i dont burn myself out working on this

UI Design Draft



Feedback from Ethan Miller on UI Design




For the above feedback, the UI was shared over a dark background, making it difficult for Ethan to see the transitions and their corresponding conditions. The word document background makes it easy to see.

Revised Personas and UI Design

Reggie

Manager at Tutoring Centers of America



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Age: 45-55
Work: Manager
Family: Married
Location: Fourside, NY
Character: Driven

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Motivation

| | |
|-----------|-----|
| Incentive | 90% |
| Fear | 20% |
| Growth | 60% |
| Power | 80% |
| Social | 95% |

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Cassandra

Tutor at Tutoring Centers of America



"I'll help take your mental math to the mental max!"

Age: 20-30

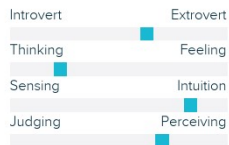
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Family: Single

Location: Twoson, OR

Character: Enthusiastic

Personality



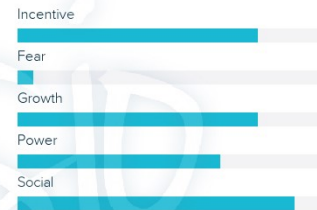
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Billy

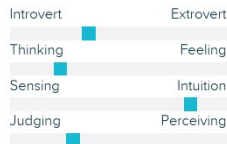
Student at Tutoring Centers of America



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Goals

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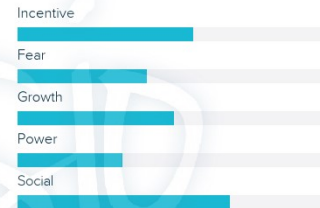
Frustrations

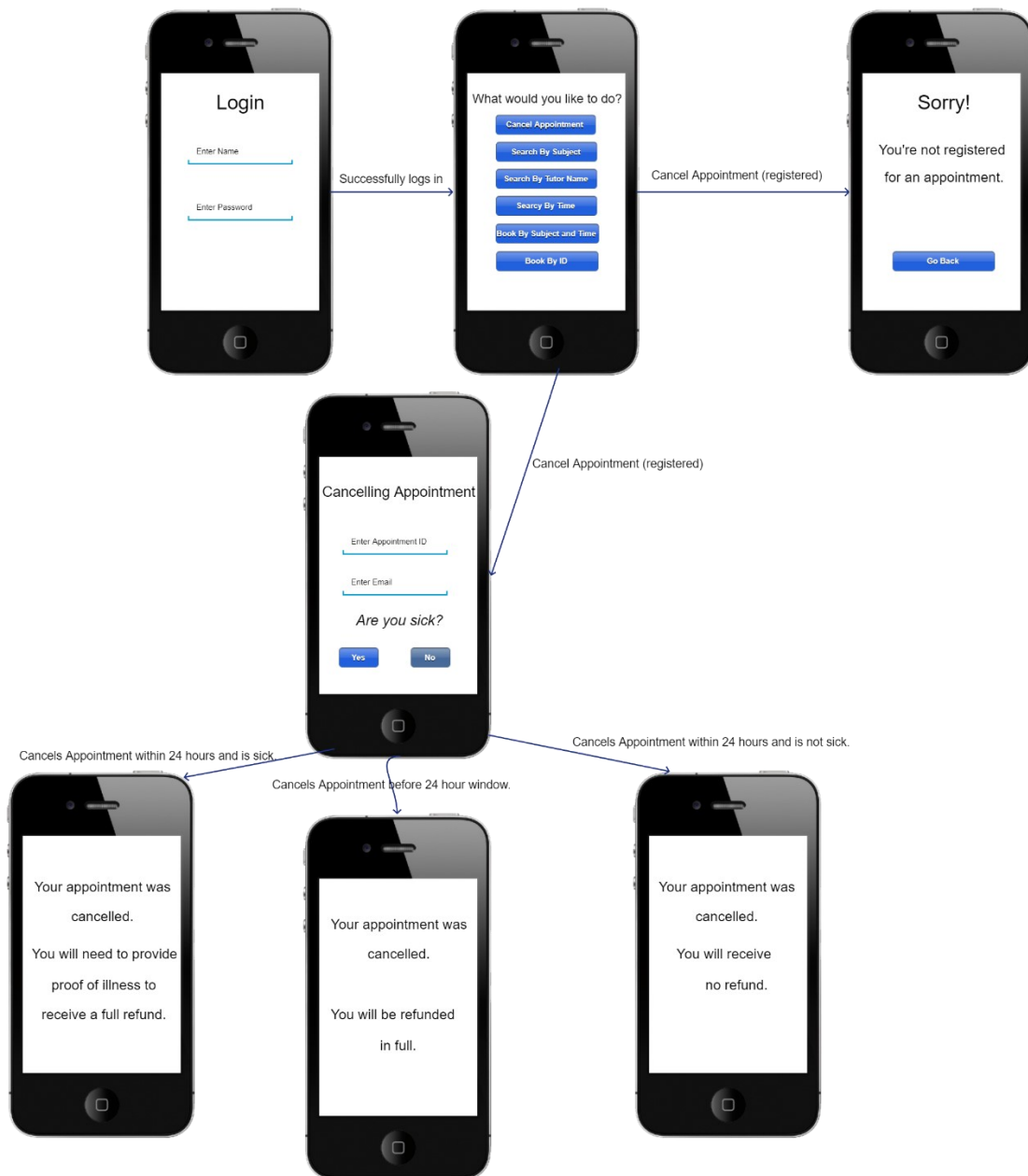
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Motivation





SCM

UML Use Case Diagram for a University System

Actors: Manager, Tutor, Student

Boundary Use Cases:

- ManagerBoundary
- TutorBoundary
- StudentBoundary

Control Use Cases:

- Manage Subjects
- Manage Account
- Manage Appointments

Data Entities:

- ManagerData
- StudentData
- Subject
- TutorData
- Appointment
- onlineAppointment
- campusAppointment
- PaymentCard
- tutoringRoom

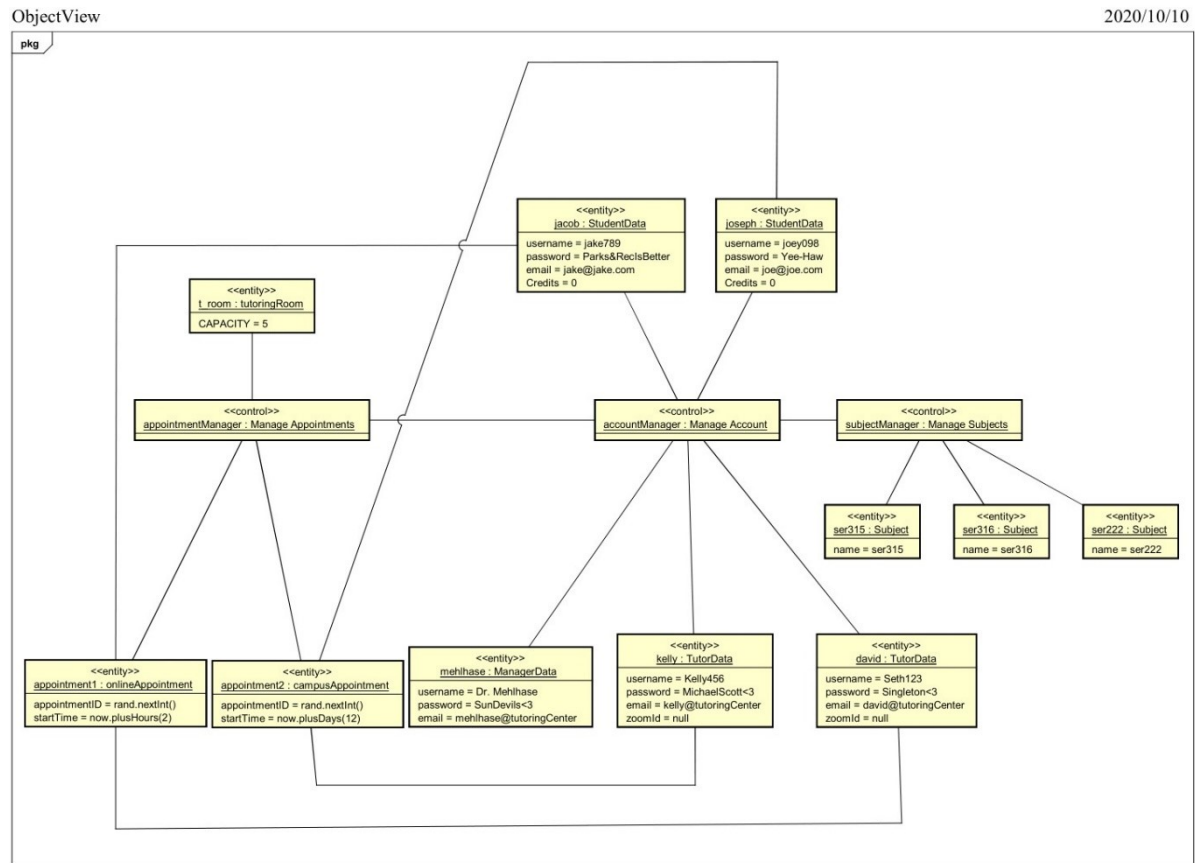
Relationships:

- ManagerBoundary *Communicates with* Manage Subjects, Manage Account, Manage Appointments.
- TutorBoundary *Communicates with* Manage Subjects, Manage Account, Manage Appointments.
- StudentBoundary *Communicates with* Manage Subjects, Manage Account, Manage Appointments.
- Manage Subjects *Accesses* ManagerData, StudentData, Subject, TutorData, Appointment, onlineAppointment, campusAppointment.
- Manage Account *Accesses* ManagerData, StudentData, Subject, TutorData, Appointment, onlineAppointment, campusAppointment.
- Manage Appointments *Accesses* ManagerData, StudentData, Subject, TutorData, Appointment, onlineAppointment, campusAppointment.
- ManagerData *creates* Subject, *adds* TutorData.
- Subject *teaches* TutorData.
- TutorData *schedules* Appointment.
- Appointment *books* PaymentCard, *located in* tutoringRoom, *is* onlineAppointment, *is* campusAppointment.
- PaymentCard *owns* Appointment (0.1 to 1).
- tutoringRoom *has* Appointment (1 to *).
- onlineAppointment *is* Appointment (* to *).
- campusAppointment *is* Appointment (* to *).

Notes:

- Though its not explicitly stated, I decided to add an email for the managers as well. If the customer does not like the idea, it can be removed later on.
- Again, not explicitly stated, but I figured a nice feature of the system would be to allow students who prefer to be online only for health reasons to be able to purchase more credits online through our system.
- while the tutoring room can only have 5 appointments at the same time, it can have any number of appointments scheduled at various times. Capacity is used in case the limit of 5 is changed to something else.

Object View



Note: while the structure of the object relations matches that of the Java implementation, ManagerData, TutorData, and StudentData are represented as Manager, Tutor, and Student, respectively, in the Java implementation.