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# SETUtoring

BRIAN BANVILLE

SINEAD CLEARY

EMMMA CLARKE



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# Overall Introduction to Project

## Product Vision

FOR SETU students WHO need extra aid with their studies or who are in a position to help others with their studies, SETUtoring is a Web-based service THAT provides students with the ability to book tutoring appointments with more senior students from the same course or apply to give tutoring sessions to those possibly struggling with certain material. UNLIKE other online tutoring services OUR product provides simplicity and ease in finding suitable tutoring options with those who have first-hand experience in your area.

## Features

- Booking System
- Payments Page
- Online or in person selection
- Subject selection
- Messaging system between tutors and students
- Feedback area
- Apply to tutor form
- User profiles
- Resource library
- Whiteboard and annotation tools
- Subtitles
- Language selection
- Notifications

## Personas

### What is a Persona?

A persona is a fictional typical user that is created to represent a demographic group that will interact with your app. It displays information on users such as their goals, characteristics and behaviours to ensure that their needs are in mind when designing every feature and function available in your product.

### Persona 1



**Name:** David **Age:** 36 **Gender:** Male

**Family Status:** Married with two young children

**Quote:** "I need assistance with passing and understanding my maths module from home"

**Education:** Studying Mechanical Engineering (3<sup>rd</sup> Year)

**Location:** SETU Waterford campus or at home

**Psychographics:** Prefers the option of remote tutoring to in person. Appreciates tutors having flexibility in their booking times. Enjoys meeting others and learning new methods of problem solving.

**End Goal:** David uses tutoring services in preparation for his upcoming exams. He is a father of two young children and so he likes to get home as early as he can so he can spend time with them. Due to this he finds online tutoring to be more suitable to his situation. After having a break in his education he struggles with some of his modules and is looking for some extra help. He may use the SETUtoring app to book and get help with his maths module whilst being at home to tend to his children.

## Persona 2

**Education:** Studying Business (4<sup>th</sup> Year)

**Location:** SETU Waterford campus or sometimes at home

**Devices:** Laptop, phone

**Psychographics:** Enjoys helping others and sharing knowledge. Is organized and has good time management. Likes to connect with other students.

**End Goal:** Anna is passionate about her studies, but she always wished for a peer-to-peer support service to aid her coursework, especially in her first year when she was just settling into college. Now she wants to help where she can and become a tutor. She believes that the SETUtoring app will be perfect for organising time slots and communicating with students interested in getting tutoring.



**Name:** Anna **Age:** 22 **Gender:** Female

**Quote:** "I want to be able to connect with other students and help them with areas of study that I'm knowledgeable about."

## Persona 3

**Education:** Studying Nursing (2<sup>nd</sup> Year)

**Location:** SETU Waterford campus or sometimes at home

**Devices:** Laptop, phone

**Psychographics:** She appreciates accessibility and patience. She wants to collaborate and learn new information with others. She wants meet other likeminded students.

**End Goal:** Carol is a French Erasmus student studying at SETU for a semester. English is not her first language and some of the modules she is studying are completely new to her. She may use the SETUtoring app to book tutoring appointments and also take advantage of the apps multi-language feature which takes all information displayed on the app and translates it into the user's desired language for easier access.



**Name:** Carol **Age:** 25 **Gender:** Female

**Quote:** "I want to book tutoring sessions online however I am not fluent in English and find some apps too complicated".

## Persona 4



**Name:** Ben **Age:** 19 **Gender:** Male

**Quote:** "I need help with passing my repeat psychology exam in August".

**Education:** Studying Psychology (1<sup>st</sup> Year)

**Location:** SETU Waterford campus

**Devices:** iPad, phone

**Psychographics:** Values collaboration and seeks support from peers and experts to enhance learning. Strives for academic success and is determined to overcome challenges.

**End Goal:** David is a 1<sup>st</sup> year student in Waterford. He is a studying to be a psychologist. He failed one of his summer exams and has to repeat it in August. He wants to do far better this time and needs help outside of the College semester. He knows that SETUtoring has the skills and resources to help him succeed in his goal, and any other academic goals going forward.

## Scenarios

### What is a Scenario?

A scenario is a fictional situation that describes how and why users may interact with your system. It details circumstances in which a user is utilizing some of your product's features to achieve their end goals.

### Scenario 1

#### **Making an Appointment**

David is studying currently for a physics exam. He is struggling with understanding some of the course material, and is using the SETUtoring service to aid his studies. He spends most of his study time at home and therefore has a preference for online sessions.

From home he logs onto the SETUtoring app using his student email. From the welcome screen he is given the option to make an appointment for a session or apply to become a tutor. He decides to book an appointment using the 'tutors' tab. He chooses from a list of possible study topics relevant to his course. He chooses physics. He is shown a list of available time slots with suitable tutors for engineering and physics. He can choose one or more time slots. David selects one option that suits him and fills the optional text area with an additional note detailing exactly what materials he wants covered. He receives a notification from the app telling him that the tutor has agreed to do an online session at his chosen time. David uses the chat feature to communicate with the tutor prior to the lesson and tells them that he would like to have the lesson online. He can set reminders for the upcoming session, and by default he gets a notification 1 hour before the meeting. David chooses to also add another notification for 24 hours prior.

### Scenario 2

#### **Becoming a Tutor**

Anna is a fourth year business student at SETU. She has decided that she wants to connect and help other students with their studying in modules that she is knowledgeable about. As part of this Anna has decided that she wants to become a tutor and offer students in more junior years of her course the opportunity for one on one tutoring sessions to try and help them in passing some modules that they may be finding difficult to grasp.

To become a tutor Anna must sign up on the SETUtoring app using her student email. She will then be shown a welcome page with the option to become a tutor displayed at the bottom. She clicks this and a questionnaire for her to fill out is then shown. This short questionnaire will be used to find out her course and modules so that if her application is successful she can be recommended to the right students. Anna will also be asked to provide proof of her past module results to ensure that the right tutors are approved. Once finished a thank you screen will appear with an estimated waiting time for confirmation.

After being approved Anna will then be able to customize her profile by adding a picture, an about paragraph, her favourite modules and the times she is available to tutor in the coming weeks. She then receives a notification from a student interested in being tutored by her which she can request or deny. Anna accepts the request and a messaging log can begin between them to decide on the best place to hold the session. If the time no longer suits Anna for unforeseen reasons there is a 'reschedule/cancel' button next to the student's icon. When they have decided on a new time and

place for the session to be held the meeting time is input into Anna's calendar tab on the app so she can keep track of all her appointments.

### Scenario 3

#### **Finding a Tutor & Cancelling an appointment**

Carol is a second year Erasmus student who is studying nursing at SETU for a semester. She wants to use the SETUtoring app to find a tutor to book in person tutoring sessions with. She is unsure about some of the content in her modules and would like to find a third year nursing student to help her get an understanding of the content.

In order to find a tutor Carol must first sign up to the SETutoring app using the email given to her by the college. When signing up Carol clicks on 'yes' on the Erasmus question on the survey, she is then asked to select what language she wants the app in to make it more accessible and easier to navigate. Once she is signed up she is greeted with a welcome screen with tabs for 'calendar', 'tutors' and 'information' at the top of the page.

Carol wants to find the best tutor to suit her needs for her session and so she selects the 'tutors' tab at the top of the page. She is then shown a list of tutors that are studying her course. She clicks the filter button at the top of the page to narrow down the list to just third year students. The list of tutors are shown in order of how compatible they are with the times and modules she has selected. Carol selects the first tutor on the list as she notices that she also can speak French and so would be best at helping explain some of her module content with her. She sends the tutor a request which is shortly accepted. A messaging chat begins between them discussing the most suitable place for the session.

Two days before the session Carol realises that she can no longer attend the initial session. She navigates to the 'calendar tab' where there is a button to 'reschedule/cancel appointment' once selected Carol can select a reason for the cancellation which is then sent to her tutor. Carol decides that she would like to book another session with the same tutor and so goes to the 'tutors' tab and selects another available time to book.

### Scenario 4

#### **Applying for a session outside of the college calendar**

Ben is studying for a repeat psychology exam in August. Recognizing the need for a structured study plan, he turns to the SETUtoring app, a platform that promises to streamline his preparation process. Upon logging in, Ben is greeted by the welcoming interface, prompting him to explore the tutors tab. Here, he discovers a variety of group sessions tailored to his psychology module, each led by a qualified tutor.

Ben decides to message a tutor to inquire about studying the topics for his exams. The tutor urges Ben to secure his spot. Ben, appreciating the flexibility offered by SETUtoring, opts to join the session remotely due to his residence in a different county. The tutor messages him all the necessary information for the remote session.

The app's calendar feature allows Ben to view scheduled group sessions and join the list of participants. He receives a confirmation message from the tutor, complete with all the necessary details for the remote session, including access links and study materials.

# User Stories

## What is a User Story?

A User story is a detailed narrative written from the perspective of the user. It describes a user's want or need and how it can be fulfilled from using your product's features.

## User Story 1

As a student, I want to be able to communicate through the app with my tutor prior to our meeting so that we can arrange a meetup location and other relevant details.

## User Story 2

As an Erasmus student, I need to be able to change the app's default language so that the app is more accessible for me and I can easily navigate it.

## User Story 3

As a tutor, I need to be able to view all upcoming sessions on my calendar so that I can keep track of my meetings and stay organised.

## User Story 4

As a student struggling with one of my modules, I want to have an option for a group session because I am more comfortable in a group scenario rather than a one on one session.

## User Story 5

As a mature student, I want to be able to choose online tutoring sessions so that I can spend more time at home with my children and still cater to my other responsibilities.

## User Story 6

As a student who wants to become a tutor, I want to create a profile highlighting my skills and expertise so that students can easily find and contact me for tutoring sessions.

## User story 7

As a student who failed their exam, I need to be able to find and book tutors available outside of the academic calendar so that I will be prepared for my repeat exam in August.

## User Story 8

As a student, I want to receive notifications prior to my meetings so that I can be reminded before the session takes place.

## User Story 9

As a tutor, I need to be able to decline new clients/appointments so that my schedule does not become too busy.

## User Story 10

As a student, I want to be able to review my scheduled sessions so that I can cancel them if the times no longer suit me.



## Revised Features List

**Key:**

New or changed features

Comments

- Booking System
- Payments Page
- Online or in person selection
- Subject selection

Add tutor selection to booking system

- Tutor selection

Add a calendar view for students and tutors to see all upcoming sessions.

- Calendar view
- Messaging system between tutors and students
- Feedback area
- Apply to tutor form
- User profiles
- Resource library
- Language selection

Made notification feature more specific:

- Upcoming session notifications for students and tutors

Add edit and cancel features:

- Edit session details page
- Cancel session button

Removed whiteboard and annotation features.

Removed subtitles. Not relevant to this type of app.

## JUnit Tests

---

```
public class UserTest {  
    User user1,user2,user3;  
    Login login;  
  
    @Before
```

```
public void setup(){  
    user1 = new User("123456@gmail.com", "password123");  
    user2 = new User("sinead@gmail.com", "softwareengineering");  
    user3 = new User("hello@outlook.com", "hello999");  
    login = new Login();  
}
```

```
@Test  
public void correctDetailsEntered(){  
    String message = login.verify(user1, "123456@gmail.com","password123");  
    assertTrue(message.equals("Login Successful"));  
}
```

```
@Test  
public void invalidEmailEntered(){  
    String message = login.verify(user1, "nonexistant@gmail.com","password123");  
    assertTrue(message.equals("Unknown user"));  
}
```

```
@Test  
public void incorrectPasswordEntered(){  
    String message = login.verify(user1, "123456@gmail.com","hello12345");  
    assertTrue(message.equals("Incorrect Password"));  
}  
}
```

---

```
public class BookingTest {  
  
    Group group1, group2, group3,group4;  
    Room room1, room2, room3;
```

Capacity capacity;

@Before

```
public void setup(){  
    group1 = new Group(12);  
    group2 = new Group(7);  
    group3 = new Group(3);  
    group4 = new Group(-2);  
  
    room1 = new Room(0,8);  
    room2 = new Room(2,3);  
    room3 = new Room(3,9);  
  
    capacity = new Capacity();  
}
```

@Test

```
public void invalidGroupNumberOver(){  
    String notice = group1.invalidMembers(12);  
    assertEquals("Groups can't exceed 10 members", notice);  
}
```

@Test

```
public void invalidGroupNumberUnder(){  
    String notice = group1.invalidMembers(-2);  
    assertEquals("Can't have negative group members!", notice);  
}
```

@Test

```
public void invalidRoom(){  
    String notice = room1.RoomExists(0);  
    assertEquals("Room does not exist", notice) }
```

@Test

```
public void GroupSessionSuccessful(){  
    String message = capacity.verifyCapacity(room3,group3);  
    assertEquals("Class created", message);  
}
```

@Test

```
public void InvalidDetails(){  
    String message = capacity.verifyCapacity(room2,group2);  
    assertEquals("Class too big for room size", message);  
}  
}
```

---

```
public class Capacity {  
    public String verifyCapacity(Room room, Group group){  
  
        if(room.getCapacity() >= group.getMembers()) {  
            return "Class created";  
        }  
        else return "Class too big for room size";  
    }  
}
```

---

```
public class Group {  
  
    private int members;  
  
    public Group(int members) {  
        this.members = members;  
    }  
}
```

```
}
```

```
public int getMembers() {  
    return members;  
}
```

```
public void setMembers(int members) {  
    if (members <= 10 && members >= 1){  
        this.members = members;  
    } }
```

```
public String invalidMembers(int members) {  
    if (members < 0) {  
        return "Can't have negative group members!";  
    } else if (members >= 10) {  
        return "Groups can't exceed 10 members";  
    }  
    else{  
        return "Group created";  
    } }
```

```
@Override
```

```
public String toString() {  
    return "Group{" +  
        "Members" + members +  
        "}";  
}}
```

---

```
public class Login {  
    public String verify(User user, String email, String password){
```

```
if(user.getEmail() == email) {  
    if(user.getPassword() == password){  
        return "Login Successful";  
    }  
    return "Incorrect Password";  
}  
return "Unknown user";  
}}
```

---

```
public class Room {  
  
    private int capacity;  
    private int number;  
  
    public Room(int number, int capacity) {  
        this.number = number;  
        this.capacity = capacity;  
    }  
  
    public int getCapacity() {  
        return capacity;  
    }  
  
    public void setCapacity(int capacity) {  
        this.capacity = capacity;  
    }  
  
    public int getNumber() {  
        return number;  
    }  
}
```

```
public void setNumber(int number) {  
    if (number >= 1 && number <= 4) {  
        this.number = number;  
    }  
}
```

```
public String RoomExists(int roomNumber) {  
    if (roomNumber < 1 || roomNumber > 5) {  
        return ("Room does not exist");  
    } else return ("Valid room number entered");  
}
```

@Override

```
public String toString() {  
    return "Room{" +  
        "capacity=" + capacity +  
        ", number=" + number +  
        '}';  
}  
}
```

---

```
public class User {  
    private String email, password;  
  
    public User(String email, String password) {  
        this.email = email;  
        this.password = password;  
    }  
}
```

```
public String getEmail() {  
    return email;  
}  
  
public void setEmail(String email) {  
    this.email = email;  
}  
  
public String getPassword() {  
    return password;  
}  
  
public void setPassword(String password) {  
    this.password = password;  
}  
}
```

## Prototype

### What is a Prototype?

A prototype is an early version of a product which is used to test its features. It allows designers to improve, evaluate and test the product and its functions. Designers can collect feedback on it from others and use the data collected to develop other better forms of the product.

### Tool used to create Prototype (say if you found it easy to use or not briefly!!!)

The tool that we used to make our prototype was Uizard. This application was very simple to use as it provided a lot of great additional materials which helped to enhance our prototype. After the initial few minutes of figuring out the layout and quirks of the software it became increasingly easier and more enjoyable to use. The free templates that are offered were a great help when setting up pages such as the 'Login' and 'Become A Tutor page'. While the software did not contain all of the features that we were looking for such as a rotate tool we quickly adapted and made changes to our design around these hurdles. Unizard allowed us to have enough customization and originality in the creation of our prototype whilst also ensuring that the product maintained a professional and polished look which made using it convenient.



URL or Screen Shots (not all some)

