

# SHED

## Web-Development final project

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# SHED

## **Overview:**

The main goal of our project is to create a platform for the organization and management of schedules and events in any educational centers, small specialized schools or educational institutions.



# SHED

We also observed common problem in many students, that students could not find free rooms to study due to absence of study rooms in our university.

Our project for managing university and educational centers' rooms would be a comprehensive system designed to help academic institutions manage their facilities effectively.



## Presentation plan:

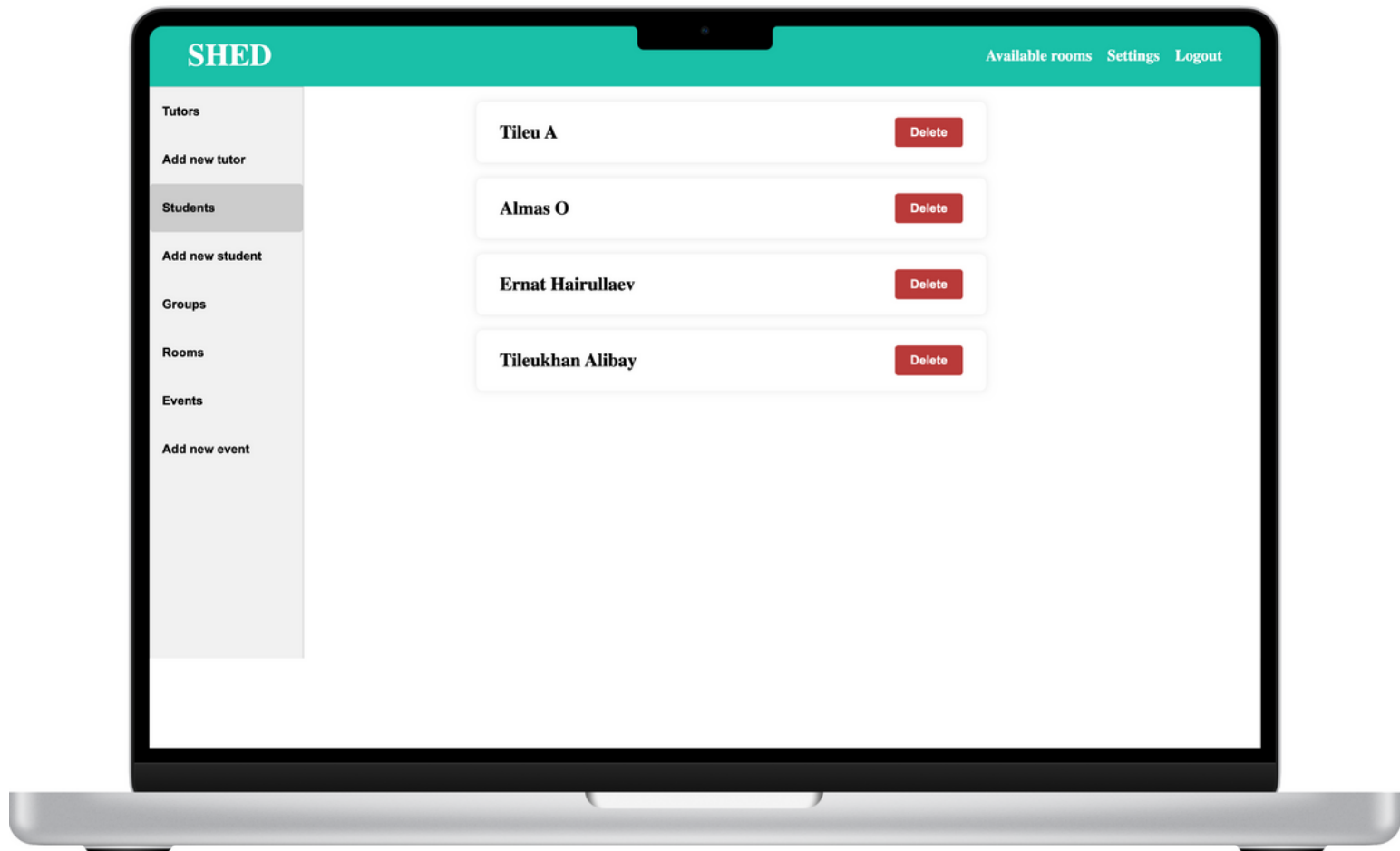
### Frontend:

- Admin page
- Tutor page
- Student page

### Backend:

- Models
- Serializers
- Views

## Admin page: Students

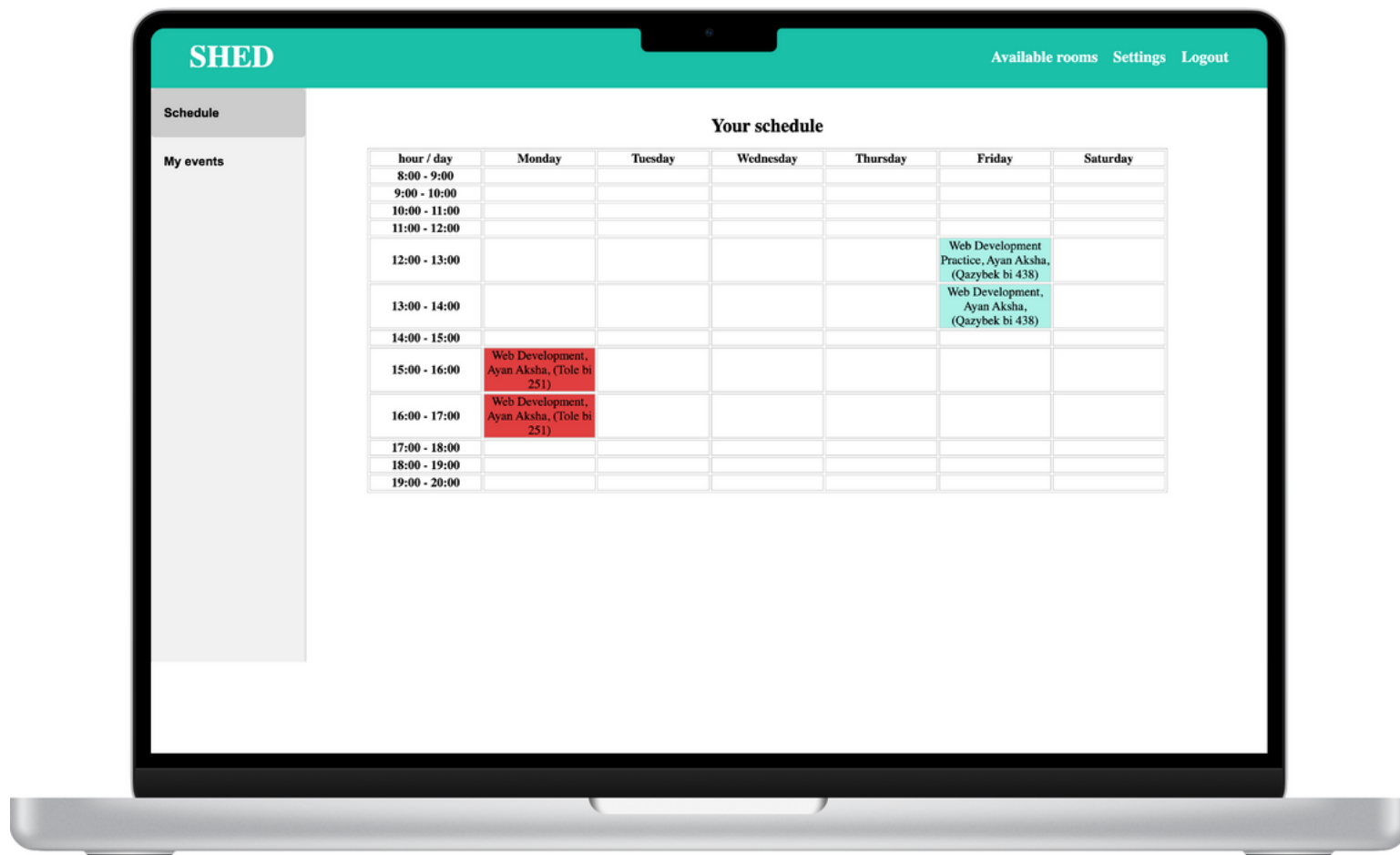


## Admin page: Add new Events

The image shows a laptop screen displaying the SHED Admin interface. The top header is teal with the 'SHED' logo on the left and 'Available rooms', 'Settings', and 'Logout' links on the right. A left sidebar contains a menu with the following items: 'Tutors', 'Add new tutor', 'Students', 'Add new student', 'Groups', 'Rooms', 'Events', and 'Add new event' (which is highlighted with a grey background). The main content area is titled 'Add new event' and contains a form with the following fields and labels:

- 'Enter start time' with a text input containing '12'.
- 'Enter day' with a text input.
- 'Enter name of discipline' with a text input.
- 'Choose a tutor' with a dropdown menu.
- 'Choose a group' with a dropdown menu.
- 'Choose a room' with a dropdown menu.
- An 'Add' button at the bottom of the form.

## Tutor page: Schedule

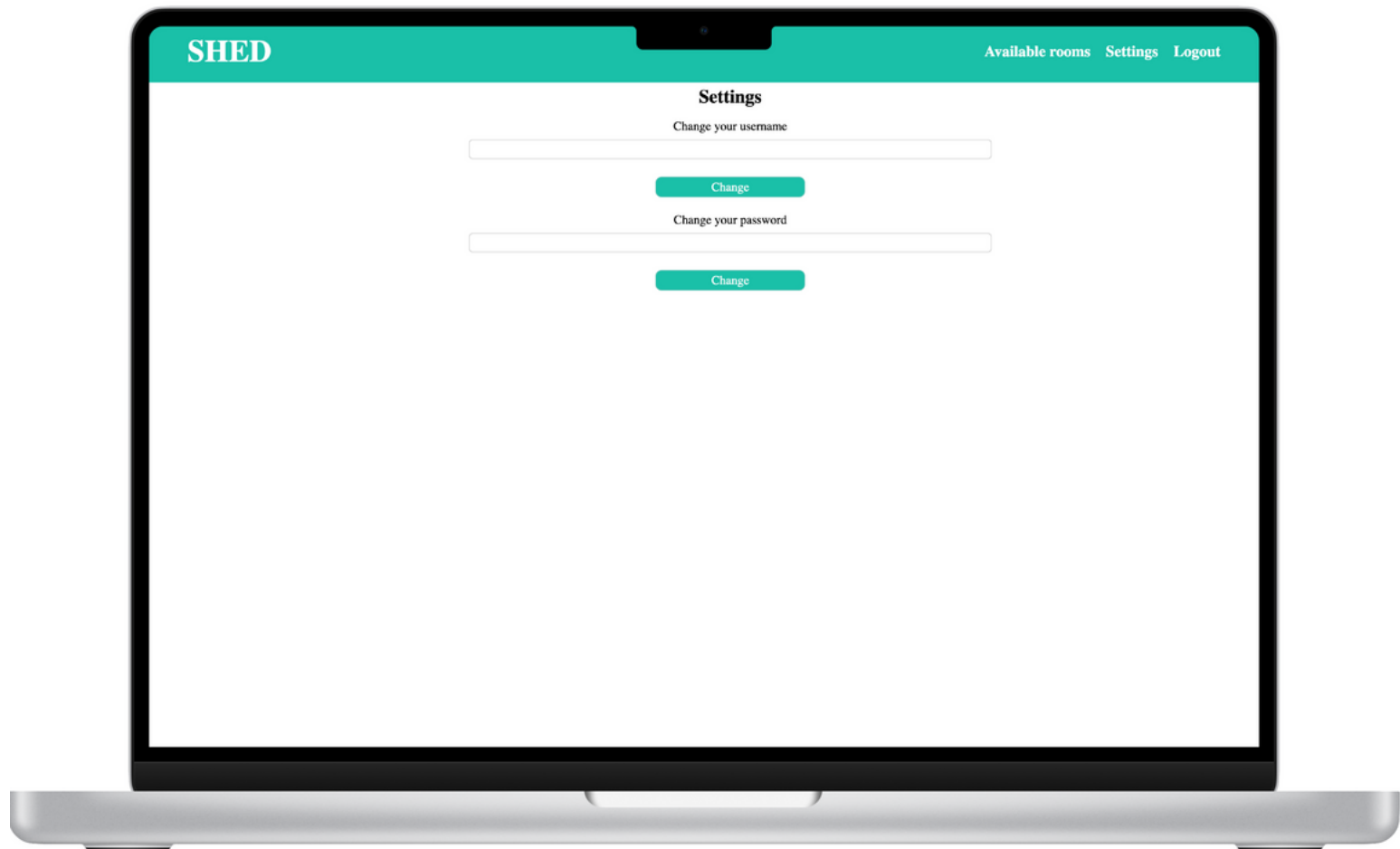


## Student page: Schedule

SHED						
Available rooms Settings Logout						
Your schedule						
hour / day	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
8:00 - 9:00						
9:00 - 10:00						
10:00 - 11:00				It Infrastructure And Computer Neyworks Practice, Aaso Ziro, (Panfilov 336)		
11:00 - 12:00		It Infrastructure And Computer Networks, Talgat Nurlybaev, (Panfilov 336)		It Infrastructure And Computer Neyworks Practice, Aaso Ziro, (Panfilov 336)		
12:00 - 13:00		It Infrastructure And Computer Networks, Talgat Nurlybaev, (Panfilov 336)	Web Development Lecture, Aibek Kuralbayev, (Qonaev room)		Web Development Practice, Ayan Aksha, (Qazybek bi 438)	
13:00 - 14:00			Web Development Lecture, Aibek Kuralbayev, (Qonaev room)	Sociology, Meruert Tileubayeva, (Abylaikhan 446)	Web Development, Ayan Aksha, (Qazybek bi 438)	
14:00 - 15:00	Kazakh Language, Zharylkasyn Zhaspasov, (Qonaev room)			Sociology, Meruert Tileubayeva, (Abylaikhan 446)		
15:00 - 16:00	Kazakh Language, Zharylkasyn Zhaspasov, (Qonaev room)			Kazakh Language Practice, Zharylkasyn Zhaspasov, (Qonaev room)		
16:00 - 17:00						
17:00 - 18:00		Golang Practice, Azamat Serek, (Abylaikhan 461)				
18:00 - 19:00	Golang, Azamat Serek, (Abylaikhan 444)					
19:00 - 20:00	Golang, Azamat Serek, (Abylaikhan 444)					



## Student page: settings



SHED

Available rooms Settings Logout

### Settings

Change your username

Change

Change your password

Change

Next part is  
**BACKEND**

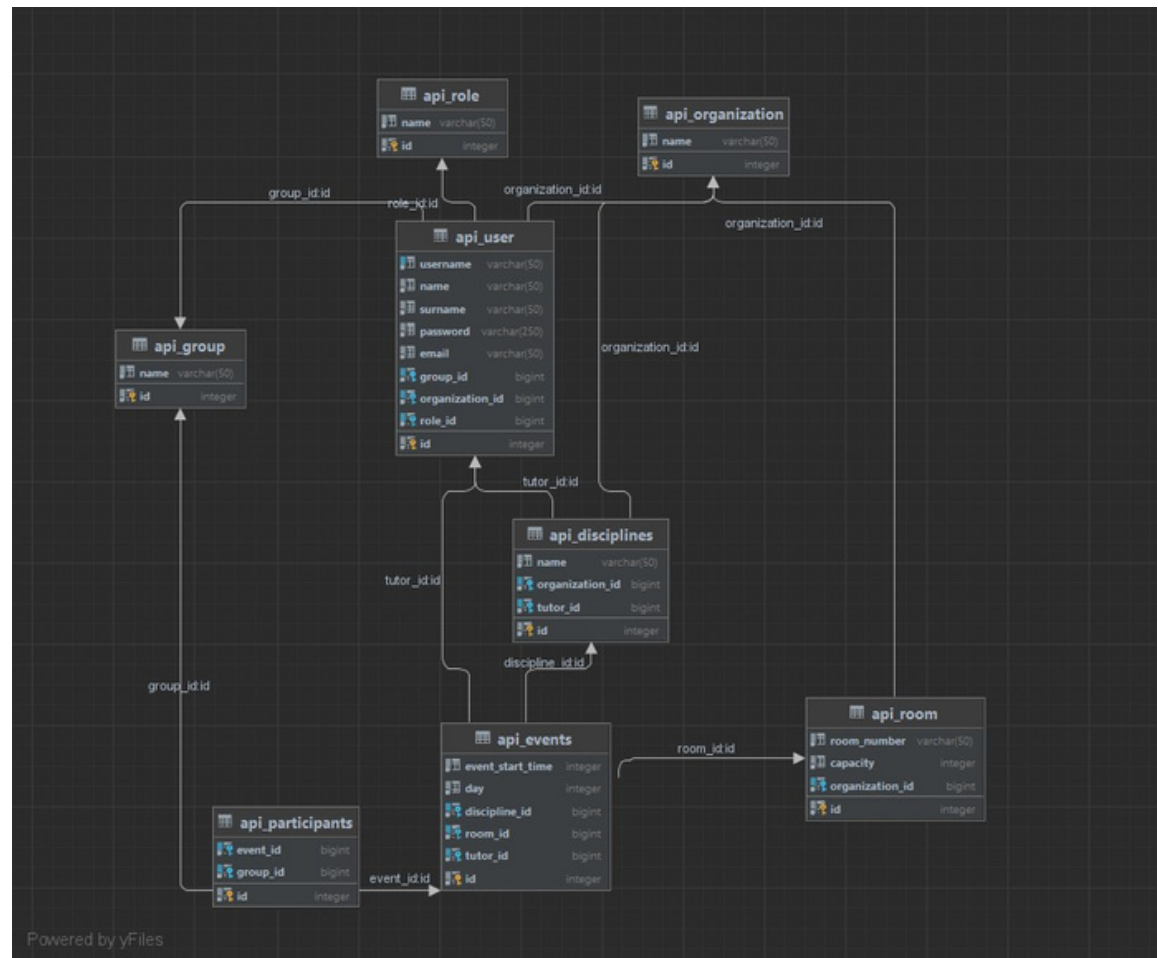
## Database Scheme

In our project we have

4 main models,

they are:

- User(Admin, Student, Tutor)
- Events
- Organizations
- Rooms



## JSON Web Token(JWT)

When client  
authenticate to  
web page,  
system  
automatically  
gives him JWT  
token

```
class LoginView(APIView):
    # Almas Orazgaliev <almas orazgaliev> +1
    def post(self, request):
        username = request.data['username']
        password = request.data['password']
        user = User.objects.get(username=username)
        if user is None:
            raise AuthenticationFailed('user not found')

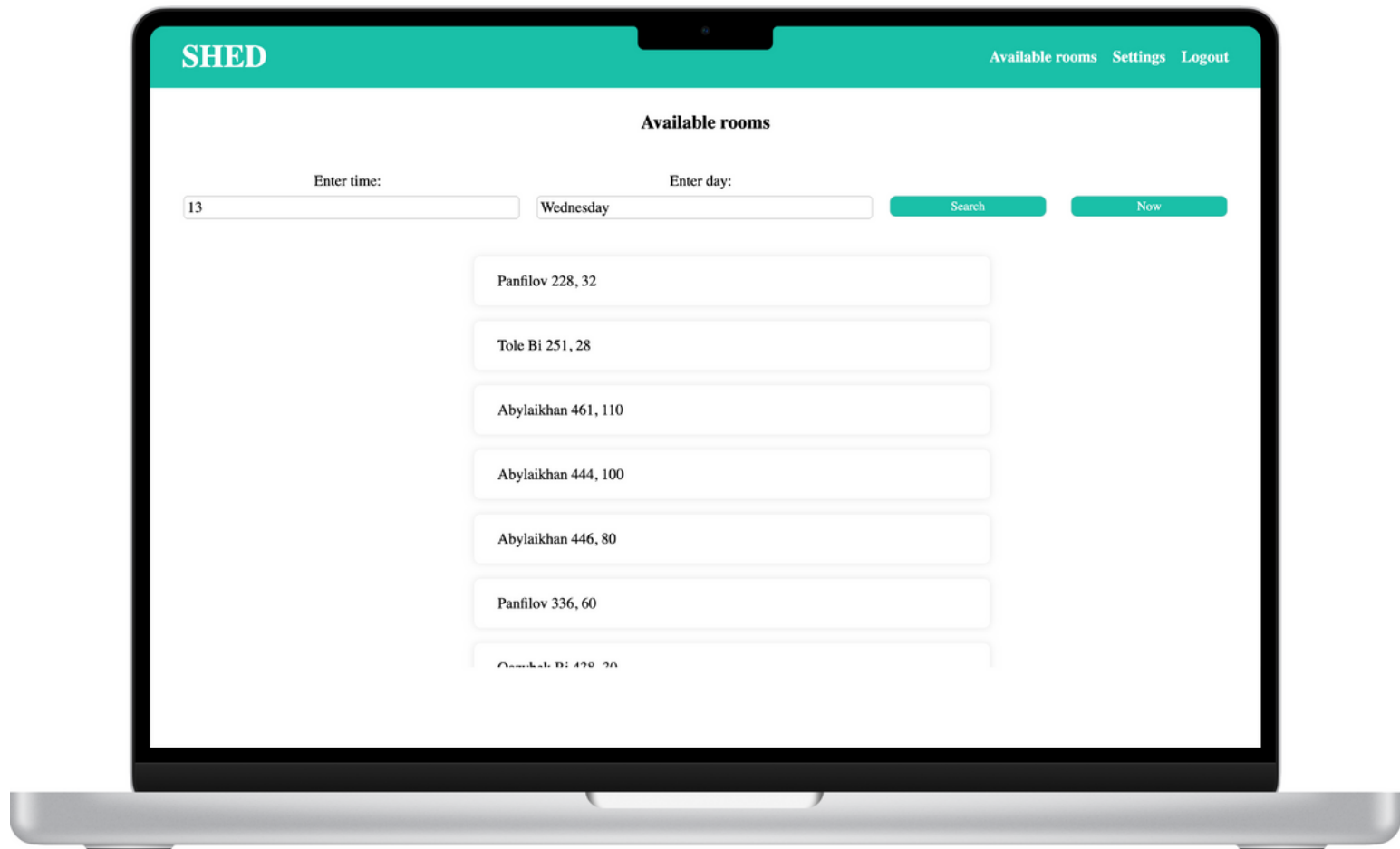
        if not user.check_password(password):
            raise AuthenticationFailed('incorrect password')

        payload = {
            'user_id': user.id,
            'username': user.username,
            'role': user.role.name,
            'org_id': user.organization.id,
            'exp': datetime.datetime.utcnow() + datetime.timedelta(minutes=30)
        }
        token = jwt.encode(payload, settings.SECRET_KEY, algorithm='HS256').decode('utf-8')
        return Response({
            'user_id': user.id,
            'role': user.role.name,
            'org_id': user.organization.id,
            'token': token
        })
```

## **Features:**

- **Available rooms**
- **Email mailing list**
- **Tutor cancelling lessons**

## Available rooms



When registering student/tutors to web-site,  
system will automatically generate  
username(based on name, surname) and  
random password and will send it to user's  
email post

```
def send_email(to_email, msg):  
    EMAIL_HOST = settings.EMAIL_HOST  
    EMAIL_PORT = settings.EMAIL_PORT  
    EMAIL_HOST_USER = settings.EMAIL_HOST_USER # SHED_team@gmail.com  
    EMAIL_HOST_PASSWORD = settings.EMAIL_HOST_PASSWORD  
  
    smtp_server = smtplib.SMTP(EMAIL_HOST, EMAIL_PORT)  
    smtp_server.starttls()  
    smtp_server.login(EMAIL_HOST_USER, EMAIL_HOST_PASSWORD)  
  
    from_email = EMAIL_HOST_USER  
    smtp_server.sendmail(from_email, to_email, msg)
```

## Tutor can cancel/activate a lesson

