Individual Milestone 1 Assignment

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Group 4

1. I was assigned to the backend team, having experience with backend technologies before (but not Django Rest Framework), I took on the lead role.
2. I have onboarded our new members Alperen and Fatih: I walked them through our repository, requirements and the overall outlook of the project. Met with the team to share my plan for the project's progress and expectations on the frontend and android.
3. I have created the backbone Django application, set up Django Rest Framework and provided other developers with directions on how to implement new APIs, collected and shared tutorials and informed them about the file structure. I have additionally implemented custom poermissions such as *IsOwnerOrReadOnly, IsSelfOrReadOnly* . These can simply be imported and integrated into a view and other developers can easily configure the permissions for their endpoints. Afterwards I implemented a simple API for events for others to refer to while creating their own APIs.
   Related issue: #111
4. I have extensively studied Django Rest Framework. Went through all available tutorials and more detailed API documentation on their website, taking note of any functionality we might need. This was 10-15 hours of work in a single week. This was necessary to get a grasp on what DRF allows us to implement and identify parts of the requirements we might have trouble with.
5. I have implemented authentication and custom permissions throughout the website. The login/register authentication was done by using Json Web Tokens. This required creating a custom user class that extends the base user class of Django. Provided documentation for the register/login endpoints to other teams and informed them on how they needed to use the access token.
   Related issue: #117
6. I have created automatically generated documentation/interaction interface for the backend. This is done using the **coreapi** framework and available at the **/api/docs** endpoint. Using this, the frontend and android teams can interact with the API, see the required fields, supported http method types easily.
   Related issue: #121
7. I have created a fully-fledged events API that supports event creation, update, add/remove participants/applicants/followers. The data representations also adheres to the W3C activity stream standards.
   Related:issue: #124
8. I have implemented location services backend using the GeoDjango framework and googlemaps later on. The associated endpoint (**/api/search/event/location/**) currently supports filtering events by their distance to a given location.
9. I have been intermittently developing a generic search engine that employs the complex query systems Q of Django to allow for complex filtering options throughout the website. Currently supporting user search by keyword, first name or username.
10. I have deployed our to an AWS EC2 instance. It is accessible at http://ec2-3-67-188-187.eu-central-1.compute.amazonaws.com:8000/

11. I have worked with the frontend team and assisted them on backend integration and creation of new pages on React before the demo day. I have also created the scenario for the demo.
12. I have created an quick manual documentation for our endpoints annotated with the functionality they provide, with example JSON queries, so the frontend and android teams know what to implement next and how. Documentation is available here: https://github.com/bounswe/2021SpringGroup4/blob/backend-main/code/README.md
13. I have started writing unittests that will later be integrated as part of our CI/CD pipeline. Completed the tests for the authentication system and guided Irfan on how to write proper tests.