Final project from group A
Web-based Crowd Trajectory Visualization Framework

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Tasks: 5
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This final project focuses on developing a Web-based Crowd Trajectory Visualization Framework. The aim is to create an interactive application that facilitates the visualization of crowd trajectories on a 2D grid-based map. The project is divided into five key tasks, each addressing a specific aspect of the framework's functionality.

In conclusion, the Web-based Crowd Trajectory Visualization Framework project addresses diverse aspects of crowd simulation and visualization, from setting up the initial software environment to implementing advanced algorithms and providing API support. The framework aims to be a comprehensive tool for researchers and practitioners in the field.

Report on task 1, Setting up the Software Environment

Develop a web-based trajectory visualization application from scratch using code in a language of choice. The application will operate on a 2D grid-based map, laying the foundation for the entire framework.

Report on task 2, Adding Elements to Simulation

Extend the functionality of the trajectory visualization application to allow users to include obstacles, targets, and pedestrians in simulations. Users should also be able to upload simulations in JSON format, enhancing flexibility.

Report on task 3, Implement API to Connect Vadera Console

Include API support to connect Vadera application through the console on the server side and leverage all features of the application.

Report on task 4, Basic User Interaction

Enhance user experience by implementing basic interaction features. Users should be able to initiate and control simulations, either by starting them or moving to the next step. A fast-forward option will also be provided for accelerated simulation.

Report on task 5, Supply Trajectories to Vadera and Visualize on Web

Use the implemented API in task 3 and apply algorithms on the provided trajectory from the web client. Visualize and display results.