

**Proposal for exercise 6 from group B**

Tasks addressed: 5  
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**Task 1, Collecting trajectory data**

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We setup a Vadere scenario from which we produce trajectory data. The data has to be collected and preprocessed to be ready to use it for the GANs.

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**Task 2, Research on GAN**

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We have to do research on suitable architectures of GANs for crowd simulation. Work that goes in the direction of “Data-Driven Crowd Simulation with Generative Adversarial Networks” [Amirian et. al 2019] (<https://arxiv.org/pdf/1905.09661.pdf>) have to be investigated to find reasonable architectures. In the end two architectures should be chosen.

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**Task 3, Setup GANs**

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We will setup two architectures of GANs.

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**Task 4, Tuning the GANs**

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The GANs need to be trained and the hyperparameters need to be set properly such that the model produces good results.

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**Task 5, Testing**

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The GANs have to be tested if they produce good results individually. They will be compared to each other based on different aspects e.g. time of ”convergence”, quality of the generated trajectories and hence the crowd simulation, etc.

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