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# Student Project Proposal

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| Project Title | Movie Recommendations – Chat Bot |
| Industry Sponsorship (if Any) | N/A |

## Project Description

**Problem definition**

*[50-100 word description of the problem which you will solve]*

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| Create a dynamic and usable chatbot that will collect user interests and preferences, then that chatbot will recommend a movie based on the related content. |

**Key Research Questions/ Technological constraints that the Project will Answer**

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| 1. Cold-start users that don’t know what they can watch 2. Indecisiveness amongst users that cannot decide on a movie to watch 3. Expanding awareness for movies that users might not have known about or wanted to watch earlier |

**Final deliverables at the end of the project**

*[Please list the desired technical deliverables from the project team in as much detail as possible]*

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| 1. Website that has a chatbot interaction and movie recommendations stemmed from that chatbot discussion 2. Links to movies for users to explore via Google (easy access) |

**Key activities/ technologies the project team may be expected to undertake/ work with**

*[E.g. What kind of technology stack will you work with, the datasets you may need to work on, what kind of analysis you may be expected to undertake, etc.]*

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| Chatbot   * spaCy, ChatterBox, or NLTK * Rules-based chatbot   Recommendation System   * TensorFlow or sklearn * Content-based chatbot   Languages   * Python |

**Expected learning outcomes**

*[What do you expect to learn from the project? Please mention the technical skills you will imbibe over the project.]*

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| 1. Architecture of both a chatbot and a recommendation system 2. Interactive ML modelling with users in the model architecture 3. Deploying a model to a cloud-based ecosystem for website usage |

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| Team Size: | 1 |
| Member names: | Matt Castelli |

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## Tentative Time plan

Submit a tentative time plan (table/chart or text) regarding breakdown of the work that will be conducted between in the second half of your cohort, from week 6 onward.

## System Design

From the System design perspective, outline the following:

* Data
* Process (Models, iterations)
* Outcome (output and recommendations)

What are the system design considerations for your deployable ML model? Describe the iterations, delivery formats and limitations you may face and some solutions to overcome the limitations

* Should the model be deployed to run in batch, or to be hit from an api or some sort of streaming process as events are generated?
* What sort of infrastructure will be required for training? If it is a model that requires a lot of resources, where is the best place to train?

## Ethical Considerations

Are there any ethical considerations of your project? Consider the data source, the intended outcome, and/or the eventual use cases.

* Did you modify anything about your plan based on these considerations?
* Can you anticipate any issues that might arise during the process?