MCI project First Milestone Report

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Project Title: AI-based Recommendation System

Milestone 1	Activities	Planned Outputs	Achieved Outputs
Restate the milestone from your Draft plan .	Restate the key activities from your draft plan.	Restate the planned outputs from your draft work plan.	Outline the actual outputs compared to what was projected (or type "same as planned")
Literature review	Project Overview and Requirements Elicitation: have meetings with client to learn about the project	Understand what the project is, the aim of the project, and the scope of it.	same as planned
	Model Reasearch: Do research for recommendation system models to identify their evaluations and understand their limitations.	Each group member collects and summarizes two recommendation system models about their limitations and evaluations.	same as planned
	Model Selection: Identify the top 3 popular AI-based recommendation system models recently and fill up the form with columns including model name, brief description, reference, evaluations.	Complete the table of top 3 popular recommendation system models as required.	same as planned
	Data Collection: Identify the Australian migrants' requirements and fill up the form with 2 columns including requirements and why it is important.	Complete the table of Australian migrants' requirements and show out the process we did in the slides	same as planned
	Data Generation: According to the requirements from the supervisor, we should generate a data file based on the given data files and link it with the requirements we collected before.	Generate a data file with Australian migrant agents and Australian migrant requirements and write a data dictionary to explain the generated data ranges and types.	same as planned
	Pitch Presentation: according to the rubric and the suggestions from client, complete the pitch	Finish a pitch video and presentation slides before the due time.	same as planned

	presentation on time.		
	Business Case and Draft Plan: based on the pitch presentation and criteria, write the document about business case and a draft plan for milestone one.	Finish the document including business case and draft plan for milestone 1.	same as planned

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<tr>
<td style="background-color:blue;color:yellow">Team reflection on progress</td>
<td style="color:blue">Provide some comments below regarding the completion of this milestone specifically around:
1. How is the project progressing?
 2. Are there any differences between projected and actual outputs/outcomes?</td>
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1. The project is progressing smoothly and according to our plan. At the beginning of this project, our team built up a task board on GitHub and broke the project down into several phases. The first phase is for milestone 1 and the activities shown above were turn into tasks assigned to our team members. After the first client meeting, we learned about the overview of the project and started to work for the model research. There are more than 10 models that we investigated and three of the more popular ones were eventually chosen. Also, two of our teammates focused on identifying the Australian migrants' requirements and digging deeper into the project's motivation.Subsequently, we invested in generating data and obtain a dataset with over 4000 data, in preparation for milestone 2. All our outputs were stored as files in the directory named Docs in our GitHub repository.

2. The actual outputs/outcomes are similar to the projected ones. The entire project has been executed according to the original plan. Our team has maintained proactive weekly communication with our supervisor to report our progress and outcomes. Through regular discussions, we have been able to clearly define the next steps and ensure alignment with the project goals. Each team member has been responsible and committed to their assigned tasks, which has contributed to the smooth and accurate execution of the project.

Team reflection on managing problems	Have you encountered any problems to date? If so, how have you managed them?
	Yes, we have encountered some challenges during the project. One issue arose during the model research phase. Initially, we conducted a broad literature search, which consumed significant time and effort but did not yield a model that met our expectations. This was mainly due to our limited understanding of the project scope and objectives at the time. After discussing the issue with our supervisor, we were able to clarify the research direction and narrow the project scope. As a result, we successfully focused our model exploration on three popular AI-based recommendation systems. Another challenge occurred during the data generation process. Our first attempt involved creating a test dataset based on features related to Australian migrants requirements. However, after discussing with our supervisor, we realized that this dataset was not fully compatible with the needs of our model training. We then held a brainstorming session, during which we identified ten more suitable features. Based on these, we generated a new dataset that better aligns with the model requirements.

Supervisor assessment	Please, rate your team (1) effort, (2) project progress and (3) their self-reflection for milestone 1 Rating scale 1-10 as per standard marking scheme, ie 5 is a Pass and 7 is a credit. Add some comments to explain your rating
Effort: Progress: Reflection:	