WIL PROJECT

Program Name: Artificial Intelligence & Machine Learning

Project Code: AIMT

Week 2

Applicable VLOs or EESs for This Week's Case Study

1. Collect, manipulate, and mine data sets to meet organizational needs.

EES 1.2 Respond to written, spoken, or visual messages in a manner that ensures effective communication. (T, A,)
EES 2.3 Execute mathematical operations accurately. (T, A,)
EES 3.4 Apply a systematic approach to solve problems. (T, A,)
EES 4.7 Analyze, evaluate and apply relevant information from a variety of sources. (T, A,)

This Week's Detailed Case Study Information

Today marks the start of an essential chapter of your life: your internship at AutoBasket! A few days ago, Luisa Morales called you to tell you she will be your supervisor during this exciting journey. With a friendly tone, she let you know that you were selected as one of the interns because she sees tremendous potential in you. Additionally, she commented you won't be alone in this experience, as you will be working with four other interns.

After a long wait, the day has finally arrived! You are feeling a mix of excitement and nervousness. On the one hand, ever since you started the Artificial Intelligence & Machine Learning program, you have dreamed about working in a top company like AutoBasket. But on the other hand, you are also a bit nervous about facing some challenging situations.

Nevertheless, you are confident that this is a fantastic chance for personal and professional development. Therefore, you are fully dedicated to giving your best to the company. Your main goal is not only to help AutoBasket in addressing issues but also to help it to become a leading organization around the world.

You arrived at your supervisor's office five minutes earlier than planned to make a good impression and avoid being late. Your new colleagues also arrived early, which gave you a brief chance to mingle with them. They all appear to be great and intelligent people.

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Right on time, Luisa showed up, and she warmly welcomed you into her office. She greeted you with a charming tone, saying, "Good morning! I hope you are having a wonderful day. Welcome to AutoBasket; we are delighted to have you on board."

Then, she shared details about herself, her educational background, work experience, and hobbies. Moreover, she mentioned that she prefers being called Lu because when someone calls her Luisa, she feels like she is being scolded.

After a pleasant introduction, she shares your first task at the company. "We want to offer our users more personalized recipe recommendations. We would like to implement an AI system to analyze their preferences and suggest new recipes that match their tastes," Lu comments.

She explains that for this project, your initial focus will be on a specific buyer persona named Luigi. "He is a 26-year-old Italian guy living in Canada. He is a huge fan of Italian cuisine and frequently adds Italian recipes to his selections. Our AI system should recommend more Italian recipes to enhance Luigi's personalized experience with AutoBasket," she claims.

To achieve the goal of creating a personalized experience for Luidi, Lu hands you a sample dataset containing crucial information about him. This dataset will be the foundation for meeting the requirements she provided earlier. With this valuable data, you can start analyzing and working on the AI system to deliver the best recommendations for Luigi at AutoBasket.

User ID	Age	Nationality	Residence	Cuisine Preference	Recipe Selection
1	26	Italian	Canada	Italian	Lasagna, Pizza
2	26	Italian	Canada	Italian	Spaghetti Carbonara
3	26	Italian	Canada	Italian	Tiramisu
4	26	Italian	Canada	Italian	Risotto

5	26	Italian	Canada	Italian	Panna Cotta
6	26	Italian	Canada	Italian	Gnocchi
7	26	Italian	Canada	Italian	Ravioli
8	26	Italian	Canada	Italian	Osso Buco
9	26	Italian	Canada	Italian	Minestrone Soup
10	26	Italian	Canada	Italian	Cannoli
11	26	Italian	Canada	Italian	Caprese Salad
12	26	Italian	Canada	Italian	Biscotti
13	26	Italian	Canada	Italian	Focaccia
14	26	Italian	Canada	Italian	Ossobuco
15	26	Italian	Canada	Italian	Eggplant Parmigiana

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Deliverables for This Week's Case Study

Your tasks this week include:

- Clean the provided dataset about Luigi's preferences, handle any missing values, and ensure it is in a suitable format for analysis and model building.
- Analyze the cleaned dataset.
- Identify patterns, trends, and key insights that can help understand his Italian cuisine preferences better.
- Develop the AI-based personalized recipe recommendation system for Luigi. Use appropriate machine learning algorithms to build the system that can analyze Luigi's preferences and suggest relevant Italian recipes.
- Evaluate the recommendation system performance.
- Analyze how well the system performs in suggesting relevant Italian recipes for Luigi.
- Present the AI-based personalized recipe recommendation system in a commercial video format.
- The goal is to demonstrate how well it works and how it is an innovative idea for AutoBasket.