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| |  |  |  | | --- | --- | --- | | **Kingdom of Saudi Arabia**  **Ministry of Education**  **University of Jeddah**  **College of Computer Science and Engineering**  **Department of Computer Science and Artificial Intelligence** | Logo, company name  Description automatically generated | **المملكة العربية السعودية**  **وزارة التعليم**  **جامعة جدّة**  **كلية علوم وهندسة الحاسب**  **قسم علوم الحاسب والذكاء الاصطناعي** | |  |  |

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| **Lab 1** |
| **CCAI 422 Recommender Systems** |
| **Second semester 2024**   |  |  | | --- | --- | | **Lab Date/Time: 24th Jan 2024** |  | | **Student Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**  **Student ID: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** | | |

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| **Instructor Name** | **Section** |
| Dr Safa Alsafari |  |

**Instructions**:

The lab assignments must be submitted before the allocated Date/Time.

The lab assignments must by uploaded on LMS / sent by email to teacher@uj.edu.sa.

Plagiarism will be punished according to university rules.

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| **PLO/CLO** | **SO** |
| **PLO S2 (CLO 2):** Demonstrate the ability of applying tools, techniques and practices required for problem solving in the domain of recommender systems | **SO 2:** Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program’s discipline |

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|  |  | **Max Score** | **Student Score** |
| **PLO S2 / CLO 2 / SO 2** | **Task 1** | **5** |  |
| **Total** | |  |  |

**Lab Description**

In this lab you will go through the basics of the Pandas library.

**Task 1: [PLO S2 / CLO 2 / SO 2] [5 marks]**

To enhance your proficiency in data manipulation using Pandas, we have selected a tutorial that covers key concepts and techniques. Follow the steps below to create a notebook, work through the tutorial, and submit your completed notebook to Blackboard.

**Create a Jupyter Notebook:**

* Open Jupyter Notebook on your computer or use an online platform like Google Colab or Jupyter Notebooks on Anaconda Navigator.
* Create a new notebook with an appropriate name (e.g.,ID\_Name\_\_CCAI422\_Lab01).

**Access the Pandas Tutorial:**

* Visit the following link for the tutorial: <https://realpython.com/pandas-dataframe/>
* Read through the tutorial carefully, as it covers fundamental aspects of Pandas DataFrames.

**Implementation in the Notebook:**

* As you progress through the tutorial, implement the code examples and exercises in your Jupyter Notebook.
* Take notes and comments to explain your understanding of the concepts.
* Feel free to personalize the data by substituting names, cities, ages, and Python scores with different values.

**Include Additional Sections (Optional):**

* Add sections to your notebook to provide explanations or reflections on specific topics covered in the tutorial.
* Feel free to experiment with additional Pandas functions or scenarios not explicitly covered in the tutorial.

**Save Your Work:**

Save your Jupyter Notebook with all the executed code and comments.

**Submission on Blackboard:**

Upload your saved Jupyter Notebook file (e.g., Pandas\_Tutorial.ipynb).

**Deadline:**

Ensure that you submit your completed notebook by the specified deadline.