	Hashemite University Prince Al-Hussein bin Abdullah II Faculty for Information Technology Department of Computer Information Systems	

For Instructor Use	
Course Name	Data Mining
Course ID	151002351
Academic Year	2023/2024
Semester	First Semester
Assignment	1
Due Date	12/12/2023

For Student Use	
Section ID	
Student Name	**Student ID**

Max. Score	Student Score
10	

Assignment-2: "Building Classification Models for the Data "

Team:

Continue with your group created in assignment 1 and with your assigned dataset.

Tasks

Classification Model:

Use Weka to discover the hidden patterns in your dataset. Include in your report a brief description of the classification algorithms you have used.

1. Use J48/ C4.5. Do not forget to append the tree obtained to your report.

    (a). Investigate the use of different parameters used in the current classification algorithm such as pruning and minimum number of records in the leaves.

    (b). Describe the patterns you obtained.

2. Use of association rule mining (ARM) to build high confidence rules.

    (a). Investigate the use of the Apriori algorithm. Remember that the implementation of Apriori algorithm available in Weka can only cope with discrete attributes.

    (b). Describe the patterns you obtained and compare them with your previous conclusions.

Models Performance:

In the previous step, you have built several models. You need to assess the quality of the models and compare the different models.

1. Weka outputs several performance measures. Choose some of the performance measures and motivate your choice.

2. Summarize in a table the performance measures for each classifier and each dataset.

3. What can you conclude?

Assessment criteria	**Percentage**	**Mark**
Correctness of the mining procedures, results and explanation of the steps.	(60%)	6 pts
Feasibility of the generated decision tree and association rules. Ability to explain the obtained results correctly.	(40%);	4 pts