



Ain Shams University
Faculty of Engineering
Computer and Systems Engineering Department

CSE 412: Selected Topics in Computer Engineering
4th Year CSE – 2nd Semester 2019/2020

T E R M P R O J E C T

In this project you are going to apply Apriori algorithm to find all the association rules in the given dataset. The dataset itself represents the customer data for an insurance company; it has 86 attributes with 5822 records.

Your task is to find all the possible association rules for **user-defined** values of **support** and **confidence**. Additionally, you need to compute the **lift** and **leverage** for each rule so that you prioritize the rules.

The dataset and the description of its attributes are available at <http://www.liacs.nl/~putten/library/cc2000/>.

This project is group project, with the group has **5** to **6** students.

You need to select 12 attributes only of your choice but make sure to start with one of the indices shown in the below table with each index should be used by only one group.

1	3	5	7	9	11	13	15
17	19	21	23	25	27	29	31
33	35	37	39	41	43	45	47
49	51	53	55	57	59	61	63
65	67	69	71	73	75	77	79
81	83	85	2	4	6	8	10
12	14	16	18	20	22	24	26

You may use **R** to build your project, however you don't have to use it, you may use any other tool/programming language.

Deliverables

1. The development code/script.
2. Written report.
3. A demo. and presentation for the project.

Deadline

10/5/2020 submitted to the LMS system in the link shown in the course page, no other submission methods will be considered.

Report schema

Cover Page	This page should contain university name and logo, faculty name, and department name at the top of the page. In addition to course code and name, project name, and your name.
Abstract	A brief description of the project.
Table of Contents	The table of contents of the whole document; include page number for each section/sub-section.
1. Introduction	
1.1 Purpose	The purpose of this document and its intended readership.
1.2 List of definitions	The definitions of all used terms, acronyms, and abbreviations.
1.3 Overview	Short description of the rest of the document and how it is organized.
2. Beneficiaries	
3. Project Aims and Objectives	
4. Detailed Project Description	
5. Project Phases	
6. System Architecture	
7. Development Environment	
8. Testing Cases and Results	
9. Conclusion	
10. Use Earned Value method to assess the progress in your project	

Notes

- Use consistent document format (font sizes, titles, subtitles, captions, paragraph formatting ... etc.). Recommended font sizes are: main title 14pt, subtitles 12pt, main text 12pt, and captions 10 pt. Recommended font type is “Arial Black” for titles and subtitles, and “Arial” for all other texts. Recommended spaces before and after paragraphs are 12pt before and 6pt after each paragraph, and 1.5 spacing is highly recommended. Justified paragraphs from both sides are also recommended.
- Figures and tables must be centered in the pages, and they should be numbered separately. Each figure/table must have a caption that appears below the figure and above the table.
- Pages must be numbered consistently except for the cover page.
- All reports must be written in English, always avoid typos and grammatical errors.