NAMIBIA UNIVERSITY OF SCIENCE AND TECHNOLOGY

Faculty of Computing and Informatics
Name of Department: Informatics

COURSE ASSESSMENT 2022

COURSE DETAILS

Course Code:	DSA821S	Semester:	2
Course Title:	Data Science and Analytics		
Lecturers:	Coordinators:	Primary: Dr Lameck Mbangula Amugongo	

COURSE WORK

Assessment Number:	2	of	3
Title of Assessment:	Recommendation system		
Formats:	Source Code	Demonstration	Report
Method of Working:	Individual		
Workload Guidance:	Expect to spend about 100 hours on this assignment		
Length of Submission:	Report	In total should not be more than **2 000** words	

PUBLICATION

Date of Issue:	Friday 7 October 2022 (Semester 1, Week 7)

SUBMISSION

Soft Copy:	Your source code should be available on GitHub. The report which should be in 2 formats (**Word** and **PDF**) should both be named name_studentNumber. As for the source code, do not change the name of the source code different from the provided prototype source. You are to make your submission in your folder on E-Learning. Additionally, a link to the GitHub repository should also be provided. **Note:** No excuse will be entertained for wrong file or document submission.
Hard Copy:	Not required

Late Submission:	Late submission will not be entertained without prior approval. Request for extension should be made not less than 3 days to the submission open date.			
Multiple Hand-ins:	Multiple hand-ins would imply the use of unfair means and therefore will not be entertained. Under such circumstances, the first submitted version will be considered. Note that you can submit updated versions of your assignment but ensure that you overwrite the existing copy. Also, ensure that the contents of both formats of the soft-copy are the same.			
Time and Date for Submission:		**Date**	**Time**	
Proposal		Friday, 16 September 2022	23:59pm	

ASSESSMENT

The Assessment is:	20%	out of	100% final mark

Assessment Strategy

The assessment strategy is designed to evaluate the student's achievement of the course learning outcomes, and is subdivided as follows:

Learning Outcome ID	Description	Method of Assessment
1	The technical quality of the work - (I.e., Does the technical material make sense? Are the things tried reasonable? Are the proposed algorithms or applications clever and interesting? Does the author convey novel insight about the problem and/or algorithms? Does the project have sufficient scope for the given team size?)	Source code, demonstration and report
2	Originality. (Did the authors add their own data processing, methods, or analysis? Does the final project avoid being a mirror image of existing papers/projects with no net new work?)	Source code and report
3	Communication. (Are the authors able to clearly and effectively explain the work that they did, including context, methods, and results? Do the paper and poster balance clarity with rigor?)	Source code and demonstration

4	Novelty and creativity.	Source code and Demonstration
Assessment Criteria:	Contributes to Learning Outcomes	Mark
Application: Code	1, 2, 3,4	15%
Report	1, 2, 3, 4	10%

FEEDBACK

Feedback will be given via:	Via marking sheet (Rubric)
How long after submission will it be available:	Not later than 2 weeks after the submission deadline.

Assignment Details

DSA821S focus on developing solutions to real-world problems and deliver technology-driven process for analysing data and delivering actionable information that helps executives, managers and workers make informed business decisions.

Problem

Tololi is a Namibian online Store (stylised as tololi) is an online marketplace and sourcing service, tailored for a convenient online shopping experience. Tololi is looking for a recommendation system algorithm. The algorithm should use item-item collaborative filtering, with possibilities to scale to massive datasets and produces high quality recommendation system on real time data. In a nutshell, the algorithm should predict the "rating" or preferences which user is interested in.

1. Report

The report must not be more than 5 pages long (including appendices and figures).

- Abstract (1 paragraph)
- Introduction (0.5 pages)
- Related work (0.5 pages)
- Methods (1-1.5 pages)
- Results (1.5 - 2 pages)
- Discussion (1 page)
    - Discuss your results. A good discussion should answer the following questions: What did you do?, Is it new? Is it true? So what?
- Conclusion (1-2 paragraphs)
- Acknowledgement

NB!!! The report should be in Latex. If you are new to latex, please use overleaf.

---------- End of Assignment ----------