ADSM

كـــليـــة أبـــوظـــبـــي لـــلإدارة
ABU DHABI SCHOOL OF MANAGEMENT

Master of Science in Business Analytics

COURSE INFORMATION

Course Name:	Visualization			
Code:	DAT 8509	C	Credits:	3
Cohort:	Winter 2020, Section 1		Winter 2021	Winter 2021

ASSESSMENT INFORMATION

Assessment No:	2	Assessment Type:	Report
Assessment Date:	18/03/2021	Assessment Submission:	18/03/2021
Assessment Weight:	60%		

FACULTY INFORMATION

Course Instructor			
Name:	Dr Samar Shilbayeh	Email:	s.shilbayeh@adsm.ac.ae
Office Location:	MS Teams	Office hours:	Sunday 10-12 pm Tuesday 1-3 pm

Program Director			
Name:	Dr Ahmad Jaffar	Email:	a.jaffar@adsm.ac.ae
Office Location:	MS Teams	Office hours:	Available on LMS

CONTENTS

Approved by Dr. Ahmad Jaffar – 10th March 2021

1. Introduction

Welcome to the Visualization Course in Master of Science in Business Analytics Program. The aim of this assessment is to develop your ability to appraise a detailed body of knowledge of recent developments in data visualization and utilize highly developed specialist communication and information technology skills to present, explain and/or critique highly complex matters related to data visualization. Additionally, this assessment will develop your critical awareness of knowledge issues in data visualization. You also will be able to experiment with advanced problem-solving to analyze high complex issues with data.

2. Course Learning Outcomes assessed:

In this assessment, you should be able to:

CLO1: Critically appraise a detailed body of knowledge of recent developments in data visualization and utilize highly developed specialist communication and information technology skills to present, explain and/or critique highly complex matters.

CLO2: Develop a critical awareness of knowledge issues in data visualization as the basis for original thinking; encompassing current processes of knowledge production

CLO3: Build advanced skills required in research, analysis, evaluation of complex ideas, information, concepts and/or activities related to data visualization.

3. Program Learning Outcomes assessed:

The Course Learning Outcomes (CLOs) indicated above are mapped to your overall (MSQBE) Program Learning Outcomes (PLOs). This assessment tests your achievement in the program with reference to the following PLOs:

PLO1:   Demonstrate a critical awareness of current issues in Business Analytics.

PLO5:   Appraise the application of business analytics in solving business issue

4. QF*Emirates* Level 9 assessed:

Please see Annex C for the detailed description.
Knowledge: KN1, KN2, KN3, KN4.
Skills: SK1, SK3, SK4.
Areas of Competency: AR1, AR3, RC1, RC2, SD1, SD3.

5. CoreLife Skills (Aligned to the QF*Emirates*)

The assessment will test the acquisition by the student of Core Life Skill (CLS) indicated by the CAA within the teaching framework of the overall course. CLS acquired on this course are the following:

Information   Collecting, analysing, organising and applying information in a given context

Mathematical/Problem Solving   Solving problems including using mathematical ideas and techniques

Technology (ICT)   Applying information and communication techniques

6. Assessment Requirement

Data Visualization is important step in analytics, because it allows trends and patterns to be more easily seen. With the rise of big data upon us, we need to be able to interpret increasingly larger batches of data The students are requested to collect their own data from appropriate data sources. Once collected, the students are asked to do the following:

1. Appraise your chosen data set by providing full description of its business domain. Clear citation on your source of the information is necessary.   **(CLO1,5 marks)**

2. Develop two different business scenarios that describe alternative perspectives on your chosen data set. These scenarios should emphasize your understanding on *exploratory* and *explanation analysis* used.   **(CLO1,5 marks/CLO2,5 marks)**

3. Construct two different visualizations on each scenario developed in part 2. Your proposal should evaluate the effective use of the in-class taught concepts such as *calculated field* and *condition field*. You must also include either pattern detection or prediction.   (**CLO2,20 marks**)

4. Construct a dashboard to show all previously developed visualizations. With clear justification, critically evaluate the design concept/s used in your proposal   **(CLO3,10 marks)**

5. With reference to scenarios and findings provided in your above answers, appraise literature review on similar cases to compare the different visualization method/s used by these cases against your above answers. (include your citation).   (**CLO3,15 marks)**

Rubric Mapping for the above requirements:

	Descriptor	Weight	Requirement 1 1	Requirement 2 2	Requirement 3 3	Requirement4 4	Requirement5 5	Requirement Marks
RR-D1	Introduction, Purpose	15%	2	3	2	1	1	9
RR-D2	Literature Review	20%	2	0	0	0	10	12
RR-D3	Analysis	30%	0	5	10	3	0	18
RR-D4	Conclusions and Recommendations	25%	0	0	5	6	4	15
RR-D5	Logic, Organization, and Writing	10%	1	2	3	0	0	6
	Assessment Marks	100%	5	10	20	10	15	60

Your Terms of Reference:
As a **GUIDE ONLY,** this section outlines some of the aspects you may consider significant given the brief shown above. Your report should include:
1. *Executive Summary*
2. *Answers to the previous questions (1 to 5)*
3. *Conclusion*

INDIVIDUAL OUT OF CLASS REPORT RUBRIC					
Descriptor	**100-88 (A,A-)**	**87-83 (B+,B)**	**79-74(B-,C+)**	**73-70 (C,C-)**	**69-41 (F)**	**40-0 (F)**
Introduction, Purpose Weight - 15%	The report clearly and *effectively* articulates the introduction and purpose and effectively addresses the task in a direct and succinct manner.	The report *satisfactorily* expresses the introduction and, purpose and addresses the task in a direct manner.	The report *partially* expresses the introduction and purpose and/partially addresses the task.	The report *vaguely* expresses the introduction and purpose and is an erratic response to the task and confusing.	The report *poorly* expresses the introduction and purpose and is an inappropriate response to the task.	The report *does not express* the introduction and purpose and is an inappropriate response to the task.
Literature Review Weight - 20%	An *effective* literature review with good synthesis of ideas and references are cited correctly.	A *satisfactory* literature review with some synthesis of ideas and appropriate citations.	Literature review is *evident* with limited synthesis of ideas and some citations	A *limited* Literature review with weak synthesis of ideas and recurring errors in citations.	A *poor* literature review with no synthesis of ideas and incorrect citations.	*No* literature review.
Analysis Weight - 30%	*Well-developed* analysis by making strong assumptions and arguments. Focused, Persuasive and Interesting.	A *satisfactory* analysis by making good assumptions and arguments. Adequately relates to concepts and theories.	Analysis is *evident* with some assumptions and arguments. Merely describes aspects of theories, issues or concepts.	*Limited* analysis with weak argumentation and assumptions. Vaguely provides some theories and concepts without much relation to the topic.	A *poor* analysis. Demonstrates flawed assumptions and arguments with unrelated theories and concepts.	The report *lacks* analysis. Incoherent, undeveloped, illogical, irrelevant, or inconsistent.
Conclusions and Recommendations Weight - 25%	Synthesizes key points *succinctly*. Proposes original recommendation based on relevant concepts, theories, models and are conceptually strong.	Restates the key points. Proposes *some* recommendation based on relevant concepts, theories and models.	*Merely summarizes* the points. Proposes recommendations based on generic ideas.	Provides *limited* recommendations that are generally mundane and trivial; very little originality. Little recognition towards solutions to problems.	Demonstrates *very little* understanding of the topic. Exhibits ideas that are derivative of secondary sources. Originality is hardly evident.	Demonstrates *lack* of understanding of the topic Exhibits ideas that are highly derivative of secondary sources. Originality is not evident.
Logic, Organization, and Writing Weight - 10%	The report demonstrates *clear, logical and sequential* arrangement of paragraphs which enhance the reader's understanding of the ideas. The written text contains no or hardly any errors in spelling, grammar, punctuation or sentence structure.	The report demonstrates *logical and sequential* arrangement of paragraphs which aid the readers understanding. Contains few errors in sentence that do not interfere with comprehension.	The report demonstrates a *sequential* arrangement of paragraphs which aid the reader's understanding the ideas presented. The report contains repeated errors in spelling, grammar, punctuation, or sentence structure but these errors do not interfere with comprehension.	The report demonstrates a *mere* arrangement of paragraphs but not in a logical or sequential manner. The weak organization sometimes impedes comprehension of the ideas presented. The report contains errors in spelling, grammar, punctuation, or sentence structure that interfere with comprehension.	The report demonstrates an *illogical* arrangement of paragraphs. The lack of organization makes it difficult for a reader to understand the ideas presented The report contains many errors in spelling, grammar, punctuation, or sentence structure that interfere with comprehension.	The report demonstrates *confusing* arrangement of paragraphs. The lack of organization makes it difficult for a reader to understand the ideas presented The report contains numerous errors in spelling, grammar, punctuation, or sentence structure that interfere with comprehension.

Assessment Marking Scheme:

Grading Scale	
Letter Code	Percentage
A	93–100
A-	88–92
B+	84 – 87
B	80 – 83
B-	77 – 79
C+	74 – 76
C	72–73
C-	70 –71
F	Less than 70

Assessment Format:

One (_electronic_) copy to be submitted. Please use a front sheet, (Annex A) and include a blank assessment discussion form (Annex B). (State method: online submission portal)

- You will be allocated 3 hours to complete this assessment.
- Insert your name and surname in the file name. Save the file as: First name Surname S1/S2 Course Name – e.g. Muhammad Usman S2 OM. NB: Please ensure that you use the name that appears in your student profile on the LMS.
- Write your complete Student ID number, your complete name as per registration, course name, instructor's name, and date.
- Write your assignment using Microsoft word document and upload on the LMS Turnitin before the deadline.
- **Note that the plagiarism limit is 15%.**

Standard academic presentation is required, including:

- Concise and appropriate language
- Fully referenced using the (_APA_) method, containing all sources used for each piece of work (if applicable)
- Avoid unnecessary cutting and overwriting where applicable.

7. Recommended Reading

Wilke, C. O. (2019). *Fundamentals of data visualization: a primer on making informative and compelling figures*. O'Reilly Media

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INDIVIDUAL Assessment Cover Sheet

INSTRUCTIONS FOR USE

1. Enter below the **Student Name, Student ID Number, Cohort & Section**, **Course code, Course Name**, **Instructor's Name**, and **Term** in which the course was taken e.g. Spring 2020.
2. Attach this Cover Sheet as the front page of the assessment.
3. Remember to keep a copy of this assessment.

Student Name:							
Student ID Number:							■■■■■
Cohort and Section							
■■■■■■■■■■■■■							
Course Code:							
Course Name:							
Instructor's Name:							
Term							

DECLARATION

By submitting this coversheet electronically, I confirm that the assessment I am uploading is work that I have completed, with the exception of the work of others that I have referenced. This assessment, or major parts of it, has **not** been submitted for any other academic studies I have undertaken. I also confirm that I am aware of what constitutes plagiarism, and I understand the penalties imposed should plagiarism be detected. The format of submitted files must be in compliance with the Turnitin requirements.

In recognition of the above, I verify that I am aware of ADSM's Academic Integrity Policy and pledge to fully comply with its principles.

STATEMENT ON PLAGIARISM AND ACADEMIC INTEGRITY

Plagiarism is a form of academic dishonesty. It is taking and using someone else's thoughts, writings or inventions and representing them as your own without giving credit to the original author(s).
If you have any doubts about how to refer to the work of others in your assessment, please consult your instructor or contact Academic Support for relevant referencing guidelines. The intentional copying of someone else's work as one's own is a serious offence and may result in penalties including deduction of marks, or failing the course. Refer to the course syllabus and ADSM P418 Student Academic Integrity Policy for further information on plagiarism and associated penalties.

Assessment Discussion Form

Academic Year 2020 – 2021

Term: ☐ Fall ☐ Spring

PURPOSE

The purpose of this form is to ensure the quality and integrity of student answers in assessments used in various courses offered at Abu Dhabi School of Management (ADSM). It will be the joint responsibility of the course instructor and the student to make sure that the student is able to discuss his/her position in the assessment document (uploaded on LMS according to published deadlines) and justify answer's alignment with QF*Emirates* Level 9 strands required in the assessment.

INSTRUCTIONS

Section A: This section should be completed by the course Instructor responsible for teaching a particular course and for each assessment given in one course.

Section B: This section is to be completed by the course instructor according to the description of assessment in the course syllabus. The instructor needs to report the CLO number, the CLO description, the Program Learning Outcomes (PLOs), and QF*Emirates* strands as designed and assessed in the assessment.

Instructor will input in each of the following columns related number of PLO and strand assessed in the assessment.

This process must be carried out for all the number of Course Learning Outcomes (CLOs) to be measured in the assessment.

Section C: This section is to be completed by the instructor and signed jointly by both the instructor and student before the marking has been completed for each assessment as shown in section B.

Note: This form will be a part of the course file as it can be reviewed at any time by the Dean or Program Director.

Section A

Course Title:		Course Code:	
Course Credits:		Program Title:	
Section/Session:		Instructor Name:	
Student ID		Student Name:	

Assessment ☐ Mid

☐ Final

Date: ……………………………………………..

Matrix Linking Assessment to Course Learning Outcomes, Program Learning Outcomes and QF*Emirates* Level 9 strands

Course Learning Outcomes (CLOs) (covered in the assessment)		Program Learning Outcomes (PLOs)			QF*Emirates* Level 9 strands				
CLO	CLO Description	PLO	PLO	PLO	K	S	AR	RC	SD

Section C

As students, you may be required to attend a submission discussion related to your assessment, to release your grade from IP:	Covered (C)	Not Covered (NC)
Assessment Topics		
We jointly confirm that the student discussed the above areas		
Course Instructor:		
Student:		

Signatures (attended)

COURSE INSTRUCTOR

_____   _____
Signature   Date

STUDENT

_____   _____
Signature   Date

Annex C

ASSESSMENT FEEDBACK FORM

This form is designed to provide constructive feedback on your written coursework. The comments below present a structured overview of the strengths and weaknesses of your work.

COURSE: ASSESSMENT:

STUDENT NAME: STUDENT ID:

STRUCTURE

CONTENT

STYLE

TECHNICAL SKILLS

PRESENTATION

Instructor Name & Signature   Date:

| Level | Knowledge | Skill | Aspects of competence | | |
			Autonomy and responsibility	Role in context	Self-development
9	comprehensive, highly specialised knowledge in a field of work, discipline and/or professional practice, and at the interface between different fields, including frontier concepts and recent developments advanced knowledge of applicable research principles and methods critical awareness of knowledge issues, as the basis for original thinking; encompassing appropriate processes of enquiry and current processes of knowledge production detailed body of knowledge of recent developments in a field of work, and/or discipline	advanced skills required in research, analysis, evaluation and/or innovation of complex ideas, information, concepts and/or activities skills to develop new knowledge and procedures and to integrate knowledge from different fields using highly developed cognitive and creative skills and intellectual independence to the field of work or discipline advanced problem-solving skills to analyse highly complex issues with incomplete data and develop innovative solutions and proposals relevant to an academic/professional field, field of work or discipline planning skills to develop and execute a major project or comparable activities (that includes a significant range of variables and complexity) with appropriately selected research methodologies producing sound conclusions highly developed specialist communication and information technology skills to present, explain and/or critique highly complex matters	can function autonomously and/or take responsibility for managing professional practices, work, processes or systems, or learning contexts that are highly complex, unpredictable and unfamiliar, and require new strategic approaches and/or intervention or conceptual abstract solutions can account for high level governance of processes and systems can analyse and reflect on socio-cultural norms and relationships and act to build and transform them	can initiate and manage professional activities that may include a highly complex environment can take responsibility for leading the strategic performance and development of professional teams and self	can self-evaluate and take responsibility for contributing to professional knowledge and practice including unfamiliar learning contexts can develop and implement further learning consistently and sensitively can consistently and sensitively manage highly complex ethical issues leading to informed, fair and valid decisions