



Business School

Discipline of Business Information Systems

INFS3050 Business Intelligence for Managers Semester 2, 2019, Practical Group Assignment [30%]

General information

Due 4pm, 25 October, 2019, after which late penalties apply. Closing date November 8, 2019, no submissions accepted after the closing date. Word length 2500. The report must be submitted via Turnitin. For further information please refer to the business school policies: <http://sydney.edu.au/business/currentstudents/policy>

This assignment requires you to develop relevant visualisation solutions for different personas. You will go through the design process by understanding the users and their needs and the data required, and by developing dashboards for each user persona.

Scenario and Data Set

The data set consists of energy related data from 28 European countries. Your task is to develop dashboards for two personas, which will be given below. You are free to develop the persona descriptions emphasizing the interests that you think the personas would have.

‘Persona’ concept

In this assignment you need to utilize the concept of ‘personas’ as part of your design process. Please refer to the lecture materials to understand the ‘personas’ concept. You can also obtain additional information through the links below:

Personas in design thinking:

[https://en.wikipedia.org/wiki/Persona_\(user_experience\)](https://en.wikipedia.org/wiki/Persona_(user_experience))

<http://www.servicedesigntools.org/tools/40>

<http://www.slideshare.net/Frankichamaki/design-thinking-with-persona>

A good resource for examples on **how to describe a persona** can be found in the following book: Goodwin, K., Designing for the Digital Age: How to Create Human-centered Products and Services, 2009. **See Chapter 11**. This book is available as ebook from the USyd library.

Prepare your data

Before you import the data set to Tableau you need to organise it to an appropriate format. Tableau can easily read data (Excel) files that have the variables on the first row. How you organise your data

file also depends on what kind of analyses or visualisations you want to do so plan before you import the data to Tableau.

It is probably best to organise your data in Excel before importing it to Tableau. Useful information for organising your data:

<https://www.tableau.com/learn/get-started/data-structure>
https://help.tableau.com/current/pro/desktop/en-us/data_tips.htm

To transform your data to be row-oriented you can use the 'transpose' function in Excel:

- 1) Copy the data you want to use
- 2) Choose 'paste special' -> transpose to paste the data on a new sheet

Connecting to the data set

On Canvas, you can find an Excel file containing the energy data from 28 European countries. After you have done the data preparations, go to Tableau and follow these steps:

1. On the left hand corner click Connect-Microsoft Excel, locate the file and open.
2. Drag the fact table sheet to the 'drag sheets here' area.

Click Sheet 1 and start working. Remember to save your file.

Requirements

Task 1 (7 marks).

You are assigned to develop a dashboard for the following two personas:

1. Assistant for the European Commissioner of Energy
2. Green party member in Sweden

Describe the personas using the template below.

Persona	< name of persona>
Role	<organisational role>
Context of work	< describe the context/work/role of this persona>
Key activities	<describe the key activities the persona is doing>
Data Visualisation Questions	Identify three questions the persona wants to answer through data visualisations. Question 1: Question 2: Question 3:

Note that the questions you identify need to be relevant for the persona AND you need to have relevant data to answer the questions. You may need to iterate between your questions and data.

Task 2 (2 marks).

Draw a dimensional model describing what data are needed to answer the questions of each persona. Again make sure you check against the data set.

Task 3 (6 marks).

Use Tableau to develop interactive dashboards that the different personas can utilize to answer their questions. Explain how the dashboards can be utilized.

Task 4.

Prepare to present your results in class on week 12. We will use the pods to present.

Task 5.

Upload the Tableau files and your presentation file you have produced to your group space on Canvas. Go to 'People', 'Group Project'.

Task 6 (10 marks).

Write a reflection about your group work assignment of developing a BI solution. Use the relevant BI frameworks from the unit of study to explain how you went through the process of developing a BI solution. Explain what challenges you faced and how you overcame those challenges. What did you learn in the process?

Additionally, you are required to write a one page description regarding the effectiveness of team work while doing the assignment. Please place this description in the end of your report (it is included in the word count). It is used to assess the team work aspect of the assignment and should include information on what were the roles and responsibilities of individual students when doing the assignment as well as a general comment about team work.

Use the following template to prepare your group report:

1. Cover page including your group number and the SIDs of all group members.
2. Descriptions of the personas and visualisations
 - 2.1. Persona 1
 - 2.1.1. Description
 - 2.1.2. Data model (dimensional model)
 - 2.1.3. Data visualisations (briefly explain how the personas can answer their questions based on the visualisations)
 - 2.2. Persona 2
 - 2.2.1. Description
 - 2.2.2. Data model (dimensional model)
 - 2.2.3. Data visualisations (briefly explain how the personas can answer their questions based on the visualisations)
3. Reflection and team work assessment

Assessment criteria for the Group Report

- Well-developed personas
- Quality of questions for each persona
- Clear, correct and well-designed multidimensional models
- Well designed and appropriate visual answers to the stated questions and written explanations regarding their relevance
- Relevant reflection on developing a BI solution

Additional assessment criteria:

- Conforming with instructions (e.g. word length, font, other instructions)
- Presentation, communication & style (written)
- Clarity of expression (incl. accuracy, spelling, grammar, punctuation)
- Use of literature/ Knowledge of theory
- Analysis
- Problem solving
- Rationale

The maximum mark for the report is 25. Max 5 marks are awarded for the in-class presentation.

**Only one student from each group needs to submit the report. Name the file as follows:
INFS3050_Group[your group number].doc**

If you have any questions please don't hesitate to ask the lecturer. Hope you enjoy the assignment!