

### **Project Brief**

<b>Project title</b>	<b>Implement Data Visualisation techniques using MS Excel</b>
<b>Module Name</b>	<b>Data Queries and Visualization Basics</b>
<b>Course Name</b>	<b>Diploma in Business Analytics</b>
<b>Project Start date</b>	
<b>Project Submission Date</b>	

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### **1. Purpose of this Project**

This Project is used for Summative Assessment of Learner in the Module ‘Data Queries and Visualization Basics’ of the NICF Course ‘Diploma in Business Analytics’

This Project considers the skills required to design & create data visualizations using MS Excel

### **2. Project Pre-requisites**

You should have completed the following activities before

- Viewed and understood all the e-content related to the module
- Completed all the MCQ tests related to the module
- Completed all the Assignment / Lab Exercises of the module

You should have access to the Project Brief, Project Report template and Project Presentation template and should understand how to use the templates

You have access to the Project Technical Environment

You should understand the number of milestones and what are the milestones to be presented for each of the Tutoring Session

To implement the project, you will need a

- a. Mac Computer or Windows Computer
- b. MS Excel

### **3. Project Outcomes & Deliverables**

You should perform all the tasks in the Project Task List and prepare the following during the project:

- Implement the project on MS Excel and prepare Excel Workbook to demonstrate data visualization.
- Prepare a Project Report as per pre-defined template
- Prepare a Project Presentation as per pre-defined template

### **4. Project Definition**

The Sample Data Set “Attrition.xls” consists of attrition status of employees of a company.

Analyse which of the following factors or combination of factors are affecting the attrition and how (whether positive or negative)

- Age
- Daily Rate
- Distance from Home
- Gender
- Job Satisfaction
- Marital Status
- Years at Company
- Years since last promotion

- Years with current Manager
- Work Life Balance
- Stock Option Level
- Standard Hours
- Relationship Satisfaction
- Performance Rating
- Percent Salary Hike
- Overtime

## **5. Project Task List**

For the above case study, perform the following project activities:

### **Activity 1: Identify the factors influencing the Data Visualization**

- Identify which of the visualizations – static or interactive is required
- Identify the audience of data visualization and their size
- Determine the frequency of data visualization
- Identify the level of details required for data visualization
- Decide the colours required for visualization
- Decide the layout of the visualization
- Prepare a 2-page report explain each of the above with Justifications and include in the Project Report
- Prepare a slide for the above Project Activity with the conclusions reached

### **Activity 2: Review the Project Data Set:**

- Identify the total volume of data
- Determine at what rate the data grows
- Analyse how diverse the data is
- Analyse the relationships within the various columns of data
- Prepare a 2-page report explain each of the above with Justifications and include in the Project Report
- Prepare a slide for the above Project Activity with the conclusions reached

### **Activity 3: Select the appropriate data visualization technique for gathering the required insights from the Project data set**

- Select one or more data visualization techniques among the following - Line Charts, Word Clouds, Network Diagram, Bar Chart, Scatter Plot, Pie Chart used in the Project
- Justify why you are using the techniques and why you have ruled out other techniques
- Prepare 2-4 slides for the above Project Activity with appropriate justifications

### **Activity 4: Develop the Data Visualizations**

- Develop the data visualization in Excel
- Attached the Excel Workbook with data visualizations, as annexure to your Project Report
- Include a snapshot of your data visualizations in Excel

## **6. Project Evidences**

Activity 1	Report: Factors influencing Data Visualization
Activity 2	Report: Review the Project Data Set
Activity 3	Project Presentation: Data Visualization Techniques Selected / Not Selected
Activity 4	MS Excel Workbook

## **7. Project Guidelines**

You should follow the below guidelines while implementing the Project:

- Implement the project in the technical environment specified in the Project brief
- Follow the format specified for Project Report and Project Presentation
- The project report and presentation should be submitted at least 2 days before the date of Summative Assessment date
- Present the Milestones in every Tutoring Session and seek the Tutor's feedback and review. Incorporate the feedback in your project.
- Attach all project evidences for each milestone as part of your Project report

## **8. Project Assumptions**

1. You can treat all the 4 activities as an individual milestone.
2. You can assume that the data is of over a period of 12 months

## **9. Project Technical Environment**

The Learner should perform the project in the following environment

- MS Excel 2010

The Learner should have the following tools installed on his / her Mac / Windows machine:

- MS Excel 2010

## 10. Project Outcome

On successful completion of this project you should be able to –

Task No.	Learning	Performance Statement / Underpinning Knowledge
Activity 1	Learning: Identifying factors influencing Data visualization	PS 1
Activity 2	How to review a Data Set for Data Visualization	PS 2
Activity 3	How to Select a Data Visualization Technique	PS 3
Activity 4	How to develop Data Visualization using Excel	PS 4

## 11. Sample Questions for Assessor

1. Explain factors are influencing the Data Visualization?
2. Justify the data visualization technique used?
3. Which are the Top reason for Attrition using data visualization?
4. Which all Data Visualization components are used in the project
5. Explain me, how the Data Visualization charts are created.
6. Demonstrate me the Prototype developed
7. Show me the Excel sheet were the project is performed