

Project Marksheet

Faculty	Information Technology		
Module Name	Python for Data Science	Module Code	ITPPA0/ITPFA0
Project Number	1	Copy Editor	Ms Nicole Stern
Student Name		Date Submitted	
Marker Name		Date Marked	
Mark	/170	Percentage	%
Moderator Name		Date Moderated	
Mark	/170	Percentage	%

Question Number		Total	Mark Achieved
Question 1		30	
Question 2		40	
Question 3		30	
Question 4		70	
Lecturer		Total Mark	

Criteria	Marks	Achieved
Student made use of coded Python methods to generate the dataset and export to a file.	5	
Student number should be generated using any of the following: <code>range()</code> , <code>for</code> loop or <code>while</code> loop.	2	
Student age should be an integer. It should be generated using a suitable <code>random()</code> function.	3	
Average hours spent studying on campus may be an integer and should be generated using a suitable <code>random()</code> function.	3	
Student mark should be generated using a suitable <code>random()</code> function. (2 marks) Furthermore, a list should be appended with the corresponding percentage, where the total mark is assumed to be 130. (3 marks)	5	
Time taken on examination (minutes) should be generated using a suitable <code>random()</code> function.	3	
Generated datasets are exported in a CSV format.	4	
Data generated within the specified ranges.	3	
150 rows present in each dataset.	2	
Other Deductions		
Total	30	

Criteria	Marks	Achieved
Headings of the Frequency Tables should be as follows: <ul style="list-style-type: none"> Average hours spent on campus Student age Student mark (1 mark per Frequency Table)	2	
Students made use of an empty dictionary with the suitable iterator and conditional statement to generate the Frequency Tables. Note to Marker: <ul style="list-style-type: none"> Students are expected to use the given ranges as the “key” and number of occurrences as the “value”. Each student mark is the “key” and the number of its occurrences is the “value”. 	15	
Bar chart showing student ages and numbers of students correctly plotted using Matplotlib. Ensure that the x-axis represents the student age groups.	5	
Line graph showing correlation between higher marks and time spent on campus correctly plotted using Matplotlib.	5	
Scatter plot chart showing each student’s mark and the time taken on the examination using Matplotlib.	5	
Scatter plot chart showing the relationship between time spent on campus and the age of the student using Matplotlib.	5	
Code commented sufficiently.	3	
Other Deductions		
Total	40	

Question 3**30 Marks**

Criteria	Marks	Achieved
Report formatted neatly and professionally	2.5	
Source code included	2.5	
Frequency Table: Average hours included	2	
Conclusion drawn	1	
Frequency Table: Student age included	2	
Conclusion drawn	1	
Frequency Table: Student marks included	2	
Conclusion drawn	1	
Bar Chart ages/student numbers included	3	
Conclusion drawn	1	
Line Graph marks/time on campus included	3	
Conclusion drawn	1	
Scatter Plot Chart mark/time taken included	3	
Conclusion drawn	1	
Scatter Plot Chart time on campus/student age included	3	
Conclusion drawn	1	
Other Deductions		
Total	30	

Criteria	Marks	Achieved
Percent-bachelors-degrees-women-usa.csv file successfully read into a list of lists.	2	
Result assigned to variable BDW.	2	
First five (5) rows of BDW successfully displayed on different lines.	2	
Header row removed; remainder of dataset assigned as BDW1.	2	
1st, 2nd and 3rd row of BDW1 shown using the slicing technique.	2	
Dictionary indexcount_year created using a for loop.	2.5	
Dictionary indexcount_year has the correct keys and values as per the specification.	2.5	
Dictionary indexpercent_year created using a for loop.	2.5	
Dictionary indexpercent_year has the correct keys and values as per the specification.	2.5	
Maths_Stats variable correctly obtained using a for loop and assigned as per the specification.	5	
Physic_Sci variable correctly obtained using a for loop and assigned as per the specification.	5	
Engine variable correctly obtained using a for loop and assigned as per the specification.	5	
Comp_Sci variable correctly obtained using a for loop and assigned as per the specification.	5	
Year variable correctly obtained and assigned as per the specification.	5	
Numpy array Selected4Majors correctly created as per the specification (each element in the list must be converted to a float before creating the Numpy array).	5	
Dictionary "Majors" correctly created as per the specification.	2	
Python function correctly created to plot the graph Year/Selected4Majors. This should be done on one graph.	5	
Legend correctly displayed in upper left corner.	2	
Title correctly set as per the specification.	1	

x-axis correctly labelled as per the specification.	1	
y-axis correctly labelled as per the specification.	1	
Conclusions drawn from the graph make logical sense and are relevant.	8	
Other Deductions		
Total	70	

Feedback:
