**CAPSTONE: MINI PROJECT**

**MARKET ANALYSIS**

**Instructions for the submission:**

* Please maintain the following: Font - Times New Roman, Font Size - 12, Line Spacing - 1.5

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| S.No. | Assessment | Submission Format | Marks |
| **1** | **Market analysis** | **Text + Jupyter Notebook** | **35 marks** |
| 2 | Churn analysis | Jupyter Notebook | 25 marks |
| 3 | Customer Segmentation | Jupyter Notebook | 30 marks |
| 4 | Employee Satisfaction | Text | 10 marks |
| **Project Maximum Marks** | | | **100 marks** |

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| **Question 2.1** | What is the average tenure… |
| **Marks** | 2 marks |
| **Word Count** | N/A |
| **Your Answer** | *Write your answer here + Screen Shots of code/ Excel*    The average tenure of the customer who are still with the company as a customer as is 37.569965  And The average tenure of the customer who have left using the services provided by the company as 17.979133  In these number we see that the average tenure generation who are still in the company are greater than the customer who left the company. |

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| **Question 2.2** | What is the monthly |
| **Marks** | 2 marks |
| **Word Count** | N/A |
| **Your Answer** | *Write your answer here + Screen Shots of code/ Excel*    The Monthly average revenue of the customer who are still with the company as a customer as is 61.265124  And The Monthly average revenue of the customer who have left using the services provided by the company as 74.441332  In these data we see that the monthly average revenue generation for a customer who left are much more higher than who are still in the company. |

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| **Question 2.3** | Which gender group… |
| **Marks** | 2 marks |
| **Word Count** | N/A |
| **Your Answer** | *Write your answer here + Screen Shots of code/ Excel*    The Monthly average revenue generation of the customer who are within the company has churn = 'No'  Male=60.876914  Female=61.664908  From this analysis we see that the monthly average revenue generation for Female group is more as compared to the Male group. |

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| **Question 2.4** | What percentage of… |
| **Marks** | 2 marks |
| **Word Count** | N/A |
| **Your Answer** | *Write your answer here + Screen Shots of code/ Excel*    Churn InternetService  No DSL 0.379204  Fiber optic 0.347700  No 0.273096  Here we see that the the customer uses DSL as an internet service most then 2nd one is fibre optic and 3rd one is No as internet as a service. |

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| **Question 2.5** | Check if the following… |
| **Marks** | 12 marks |
| **Word Count** | N/A |
| **Your Answer** | *Write your answer here + Screen Shots of code/ Excel*    From this graph we see that the online security v/s churn data  In these we see that the customers are not preffered online security which is shows in the bar plot there is high number of chances in no category so they are not preferred online security.    In these graphs there is online backup v/s churn data  In these data the customer is preferred online backup if we see in the graph there is very less margin between yes and no in that case, we say that there are 50-50 chances of the customer which uses or not uses online backup.    In these graphs there is device protection v/s churn data  In these data the customer is also not preferred device protection if we see that the customer are not uses device protection so we say that the customer is not interested in the device protection    In these graphs there is tech support v/s churn data  In these data we see that the customer is not preferred online support for her device so we say that the customer is not interested in these service    In these graphs there is streaming tv v/s churn data  In these data we see that the customer is preferred streaming tv for her device so we say that the customer is interested in these service    In this graph there are streaming movie v/s churn data  In these data we see that the customer is preferred streaming movies for her device so we say that the customer is interested in these service  From this graph it is shows that the customer are is interested streaming movie, streaming tv and online backup in any above services according to this graph so we targeted those customer who are interested in this service. |

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| **Question 2.6** | Which method of payment… |
| **Marks** | 2 marks |
| **Word Count** | N/A |
| **Your Answer** | *Write your answer here + Screen Shots of code/ Excel*    From this code it is seen that the customers are preferred automatic bank transfer because the most tenure or monthly revenue generated by this method so after that credit card and then electronic desk and the last mailed check. |

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| **Question 2.7** | Do customers(non-churn)… |
| **Marks** | 2 marks |
| **Word Count** | N/A |
| **Your Answer** | *Write your answer here + Screen Shots of code/ Excel*    From this code it is shows that the customers(non-churn) with a partner generate more profit for the company as we see in the graph so we have do partnership so we generate more and more profit for our company. |

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| **Question 2.8** | Which type of internet… |
| **Marks** | 2 marks |
| **Word Count** | N/A |
| **Your Answer** | *Write your answer here + Screen Shots of code/ Excel*    From this graph it is shows that the DSL are more popular among the non-churn customer as compared to the fiber optic and No internet service.  Fiber optic internet service are 2nd one and No internet service are 3rd one. |

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| **Question 2.9** | The company is looking… |
| **Marks** | 2 marks |
| **Word Count** | N/A |
| **Your Answer** | *Write your answer here + Screen Shots of code/ Excel*      From this code the top 10 customers and bottom 10 customer based on revenue for non-churn customer. This are 2845,3353,5598,4380,3826,1340etc. |

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| **Question 2.10** | Based on the analysis above… |
| **Marks** | 2 marks |
| **Word Count** | N/A |
| **Your Answer** | *Write your answer here + Screen Shots of code/ Excel*  *Based on the above analysis we see that the situation here for USA is much better so that the tenure generated in the USA is much better which is the electronic media is in better reach and it is uses a much online support for this telecom market in the USA.* |