

## Project Development Phase

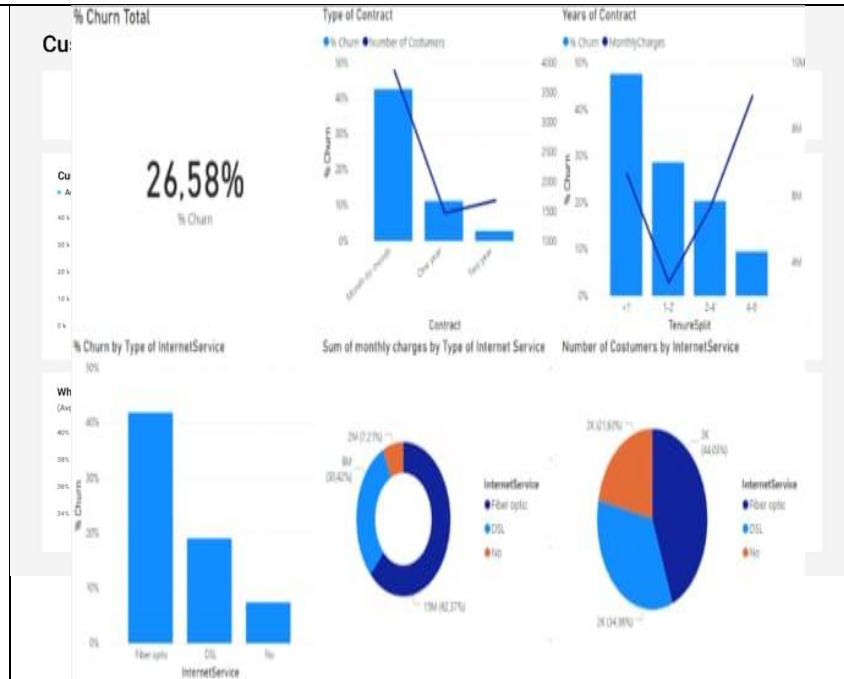
### Model performance Testing

Date :	18 October 2023
Team id:	
Project Name :	Customer churn prediction

Sno	Parameter	Screenshot /values
1	Dashboard Design	<p>The dashboard displays four charts illustrating churn rates across various user segments. Each chart shows the number of users (left y-axis) and the churn rate percentage (right y-axis) for different categories (x-axis).</p> <ul style="list-style-type: none"> <li><b>Number of users with monthly fee:</b> Shows a general downward trend in churn rate as the number of users increases, with a peak at 10%.</li> <li><b>The number of users calling in the area:</b> Shows a similar trend to the monthly fee chart, with a peak at 10%.</li> <li><b>Number of users on long distance calls:</b> Shows a significant increase in churn rate as the number of users increases, peaking at 80%.</li> <li><b>Number of users with information fee:</b> Shows a steady increase in churn rate as the number of users increases, peaking at 90%.</li> </ul>
2	Data Responsiveness	<p>The dashboard displays four charts illustrating churn analysis across different dimensions.</p> <ul style="list-style-type: none"> <li><b>% Churn Total:</b> A large central text indicating a total churn rate of 26.58%.</li> <li><b>Type of Contract:</b> A bar chart showing churn rates for different contract types. The highest churn rate is for 'Month-to-month' contracts, followed by 'One year' and 'Two year'.</li> <li><b>% Churn by Type of InternetService:</b> A bar chart showing churn rates for different internet services. The highest churn rate is for 'Fiber optics', followed by 'DSL' and 'No'.</li> <li><b>Sum of monthly charges by Type of InternetService:</b> A donut chart showing the distribution of monthly charges by internet service type. The largest segment is 'Fiber' (62.57%), followed by 'DSL' (30.42%) and 'No' (7.01%).</li> </ul>

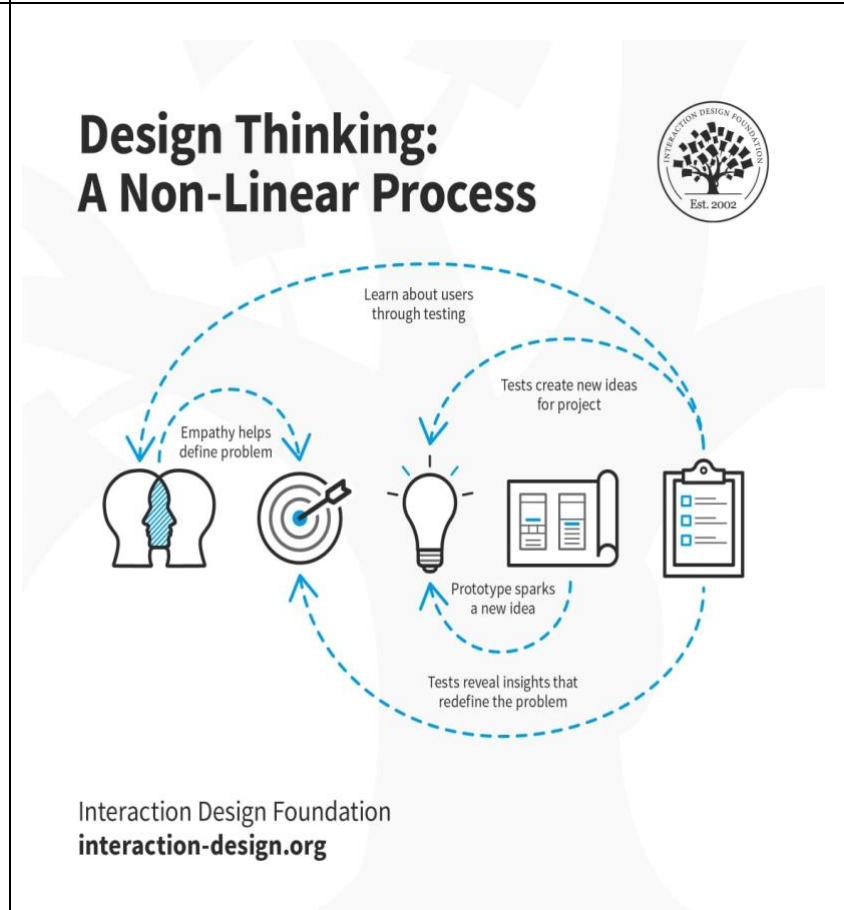
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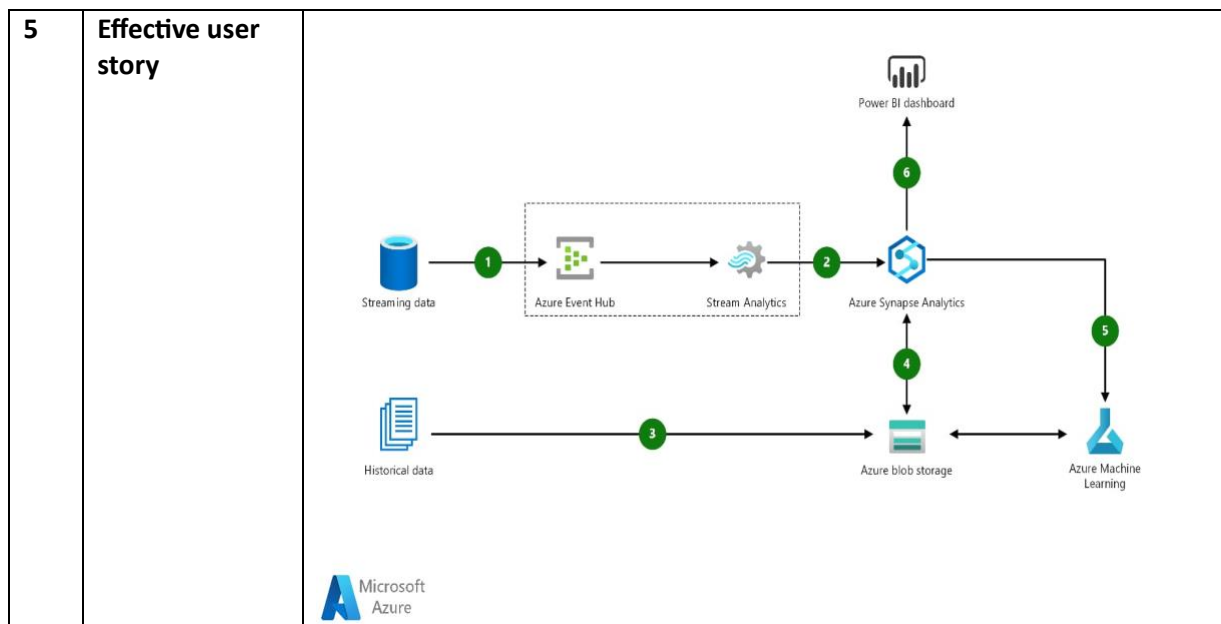
## Customer churn Dashboard



4

## Non -linear process





For effective model training and testing, the dataset is split into training data (70%) and test dataset (30%) so that data in training set and testing set are unique and the proposed model would be trained over training dataset and it is further tested with unforeseen data from test dataset.