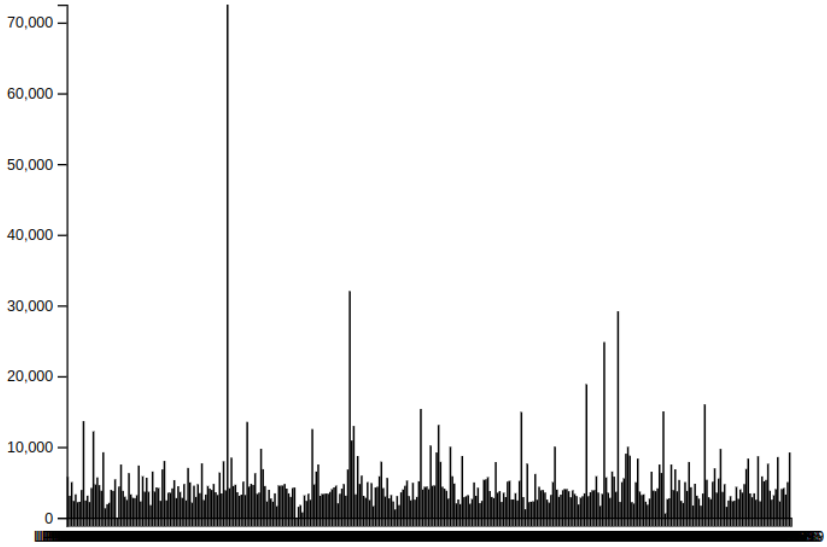
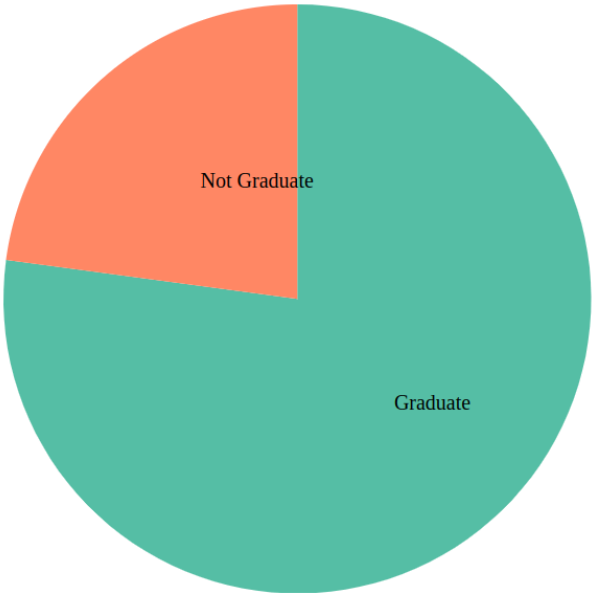
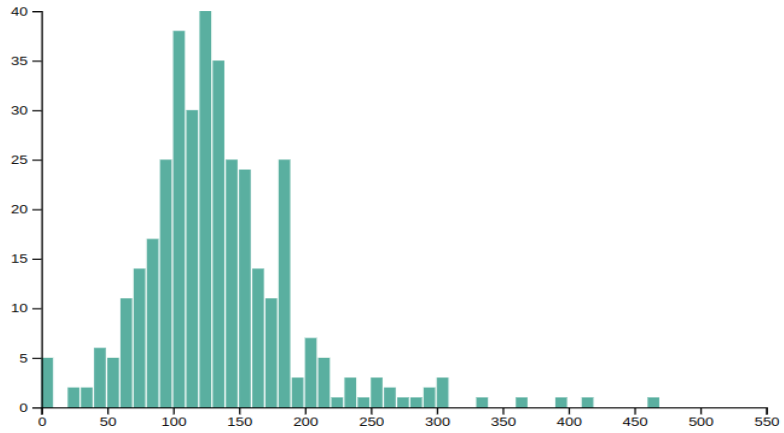
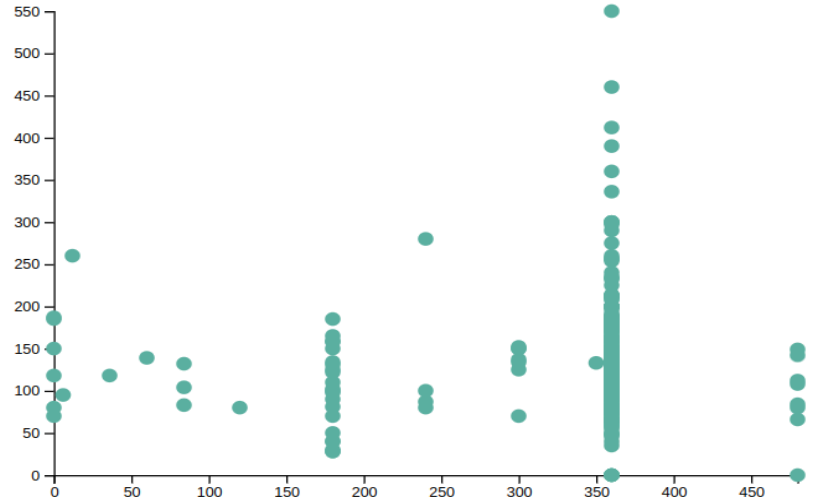
Name:	Prashil Kadam
UID:	2021600031
Experiment No:	7
Batch:	B
Aim:	Experiment Design for Creating Visualizations using D3.js on a Finance Dataset
Dataset link:	https://drive.google.com/drive/folders/1ZMmJwvADboHDAzMAQFiVr0hLfl-pCIJI?usp=sharing
Results / Outputs	1) Bar Chart: ApplicantIncome Distribution  2) Pie Chart: Education Categories (Graduate vs Not Graduate) 

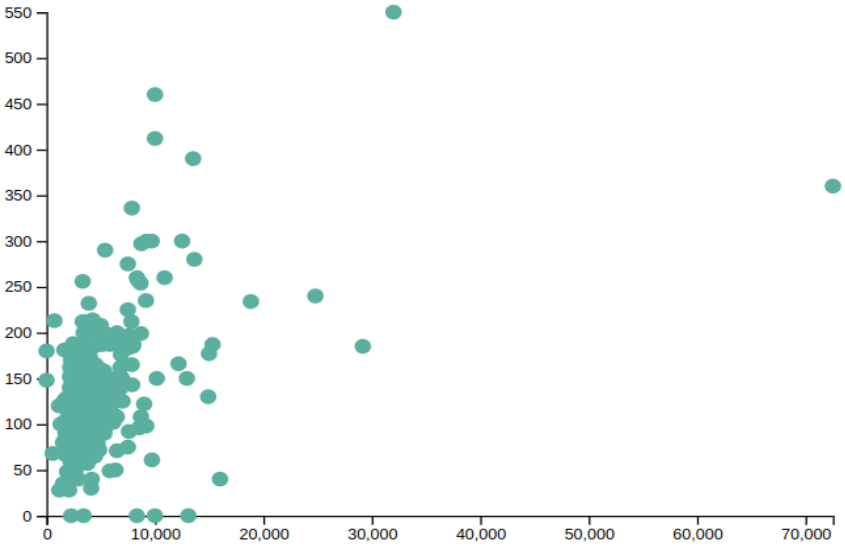
3) Histogram: LoanAmount Distribution

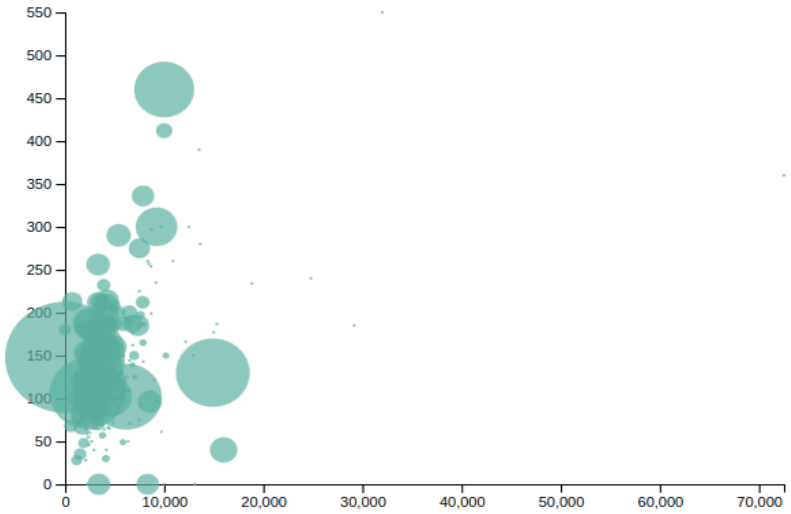


4) Timeline Chart: Loan_Amount_Term



5) Scatter Plot: ApplicantIncome vs LoanAmount



	6) Bubble Plot: ApplicantIncome vs LoanAmount (Bubble size = CoapplicantIncome) 
Conclusion	In this experiment, we explored a financial dataset related to loan applications, utilizing D3.js for data visualization. The visualizations provided valuable insights into the distribution of ApplicantIncome, LoanAmount, and various categorical variables such as Education. Bar charts, pie charts, and histograms allowed us to understand data distribution, while advanced techniques like regression plots, 3D scatter plots, and violin plots revealed complex relationships between key financial variables. The Pearson correlation coefficient helped quantify linear relationships between numerical variables, particularly showing how ApplicantIncome and LoanAmount interact. Overall, this analysis provided a comprehensive understanding of loan trends, enabling us to identify significant patterns and relationships in loan applicant behavior and income dynamics. These insights are essential for better decision-making in financial sectors like banking and insurance.