

# Regression-1

## Assignment Questions



**Q1. Explain the difference between simple linear regression and multiple linear regression. Provide an example of each.**

**Q2. Discuss the assumptions of linear regression. How can you check whether these assumptions hold in a given dataset?**

**Q3. How do you interpret the slope and intercept in a linear regression model? Provide an example using a real-world scenario.**

**Q4. Explain the concept of gradient descent. How is it used in machine learning?**

**Q5. Describe the multiple linear regression model. How does it differ from simple linear regression?**

**Q6. Explain the concept of multicollinearity in multiple linear regression. How can you detect and address this issue?**

**Q7. Describe the polynomial regression model. How is it different from linear regression?**

**Q8. What are the advantages and disadvantages of polynomial regression compared to linear regression? In what situations would you prefer to use polynomial regression?**

**Note:** Create your assignment in Jupyter notebook and upload it to GitHub & share that github repository link through your dashboard. Make sure the repository is public.