# Kinesso R/Python Exercise

The excel file you received contains two tabs:

1. Data: two years of monthly historical sales and media investment data, in dollars, of a Toy brand. Sales is the dependent variable.

2. Planned spend: the amount of investment planned for TV and Digital for the first 3 months of 2018.

# Test instructions:

1. Import the sales data into R/Python

2. Create a plot of sales, TV investment and Digital investment in the y axis with time in the x axis

3. Report the correlations among sales, TV and Digital investment

4. Fit a regression model to data, using all data points you have available

a. Report on the adjusted R-squared

b. Report the p-value and significance of each regressor

5. Calculate the contribution from TV Spend to sales in % and absolute dollar value

6. Calculate the TV return on investment (ROI)

7. Using the planned spend values for the first 3 months of 2018 and your regressions model, calculate the expected sales value for the first 3 months of 2018

8. In your opinion what additional data would improve your model and why?

9. Upload your project, including code to GitHub and send the project link to [chandni.gupta@kinesso.com](mailto:chandni.gupta@kinesso.com), [sushan.liyanage@kinesso.com](mailto:sushan.liyanage@Kinesso.com?subject=Kinesso%20R%20Test%20Submission)