**Solution Sheet**

1. Which model have you used for probability prediction? Explain your model.

From the data set given, it is quite clear that Infect\_Prob is a continuous valued function. Hence I have used Regression Model to predict the values of Infect\_Prob. But from the notebook, it is quite clear that Infect\_Prob has high correlation with multiple parameters, namely Age, Number of Children, Salary etc. Hence Multiple Linear Regression is used to predict probabilities. After fitting the data into this model, the machine creates a function/curve which is of the form:

y1 = a0 + a1\*x1 + a2\*x2 + …. + an\*xn ,

where y1 is the dependent parameter and

x1,x2,..,xn are independent parameters. Then the values are predicted by substituting independent parameter values in the equation to predict the values of probabilities.

1. Which model have you used for Diuresis Time series prediction? Explain your model.