**Abstract**

The study aims to find out the factors that affect the fertility of male human subjects using statistical methods learnt in the class. The data has following factors that may affect the sperm count in the semen collected from 59 subjects;

* Season in which the analysis was performed. 1) winter, 2) spring, 3) Summer, 4) fall. (-1, -0.33, 0.33, 1)
* Age at the time of analysis. 18-36 (0, 1)
* Childish diseases (ie, chicken pox, measles, mumps, polio) 1) yes, 2) no. (0, 1)
* Accident or serious trauma 1) yes, 2) no. (0, 1)
* Surgical intervention 1) yes, 2) no. (0, 1)
* High fevers in the last year 1) less than three months ago, 2) more than three months ago, 3) no. (-1, 0, 1)
* Frequency of alcohol consumption 1) several times a day, 2) every day, 3) several times a week, 4) once a week, 5) hardly ever or never (0, 1)
* Smoking habit 1) never, 2) occasional 3) daily. (-1, 0, 1)
* Number of hours spent sitting per day -16 (0, 1)
* Output: Diagnosis normal (N), altered (O)

**Questions**

1. How fertility depends on each of these factors?
2. Interaction between age and number of hours spent sitting per day.
3. Interaction between surgical intervention and accident/serious trauma.
4. Interaction between seasons and number of hours sitting per day.
5. Apart from age, what is the dominant factor in male infertility.

**Link to Dataset:**

http://archive.ics.uci.edu/ml/datasets/Fertility

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