**Assignment:**

**For each of the following situations, decide if you would model using a regression or classification model. Discuss your reasoning with your mentor next time you meet.**

1. **The amount a person will spend on a given site in the next 24 months.**

I think it is better to use Regression model, because we won’t have any boundary for spending time. Also, we need to calculate average time for each person can spend on a given site.

1. **What color car someone is going to buy.**

I recommend using Classification model, because we have a boundary to choose color and we can’t choose any other color which is not manufactured by the company.

1. **How many children a family will have.**

I think we can use both models. For Classification model, we can put the maximum number of children that a family in the world as a boundary and calculate the maximum or probability of it. Also, we can use Regression model without any boundary (adopted children or consider number of children greater than maximum observation) and calculate average number of children that a family will have. So, I prefer to use regression, because a regression will allow us to observe an average outcome.

1. **If someone will sign up for a service.**

I think it is better to use the Classification model. We have a limited number of sign up for the service based on the capacity of the service, so we can calculate the maximum or probability of it.

1. **The number of times someone will get sick in a year.**

I think it is better to use the Regression model. Although there are 365 days in a year, people can get sick within that year an infinite amount of times. Certain environment conditions might trigger the increase significantly so a regression will allow us to observe an average outcome based on the combination of those variables.

1. **The probability someone will get sick in the next month.**

I think it is better to use the Classification model because we have limit in the number of days in a month and can calculate probability of each observation.

1. **Which medicine will work best for a given patient?**

I think, it is better to use the Classification model, because we have a limitation to choose medicine for a specific kind of disease for a given patient’s situation cannot choose any other medication not introduced yet.