ISDS 415

Decision Support & Business Intelligence Systems

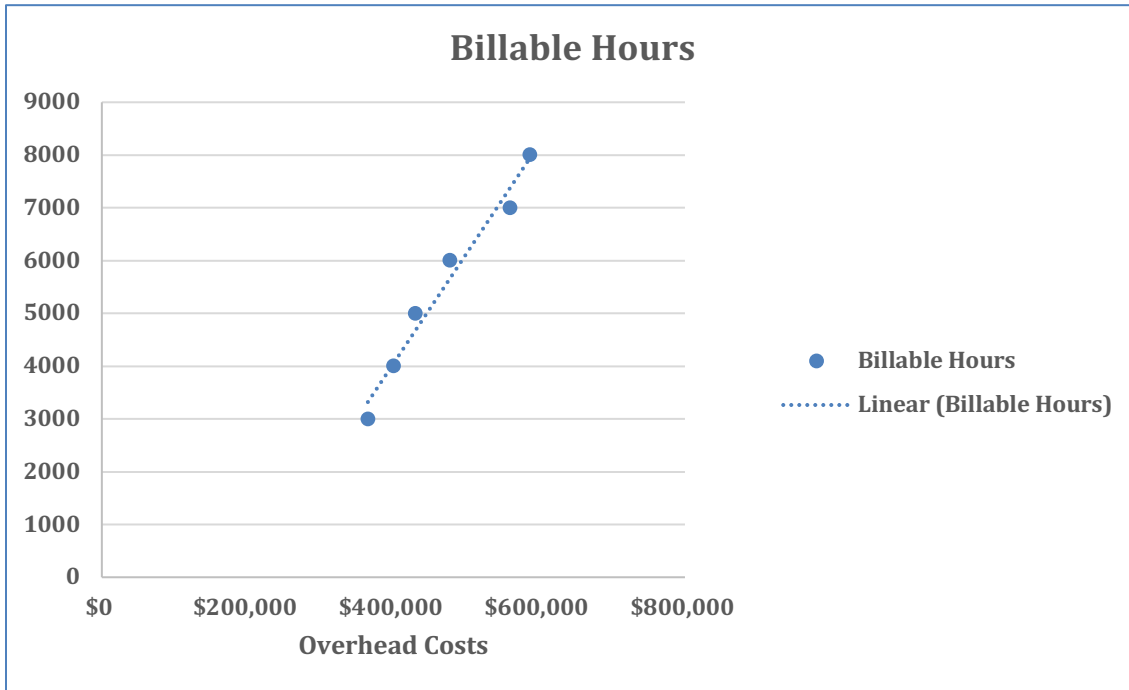## Regression HW

By

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a. Develop a trendline to identify the relationship between billable hours and the overhead costs.

Ans:

b. Interpret the coefficients of your regression model. Specifically, what does the fixed component of the model mean to the consulting firm?

Ans: Coefficient of regression model tells us by how much will the independent variable have an impact on the dependent variable i.e. overhead costs. The fixed component is the expected mean value for our dependent variable when the value of independent variable is 0 (X=0). Overhead costs = Intercept (Fixed component) + (Coeff. Of Billable hours * X). Therefore, the fixed component is 212590.48.

c. If a special job requiring 1,000 billable hours that would contribute a margin of $38,000 before overhead was available, would the job be attractive? Use data to support your answer.

Ans: Since the overhead was not available therefore its value will be 0 i.e. 46.7714 * 1000 = $46,771. This value is greater than $38000 therefore the job would not be attractive.