Name:

Project 4: Government Contracts

Please use the following to answer the questions for Project 4. Make sure to answer the questions in complete sentences with proper grammar and spelling. This document should be saved as a PDF before submitting.

Questions for Task 1:

Double click where it says "Name:" at the top of this document and type your name there.

A) What is the sample size for this data set? (When scrolling through the data make sure to remember there is a row of labels at the top.)

B) What is the probability that if you were to randomly select a government contract that it was awarded to a company in Phoenix? Write a sentence explaining what this means.

C) What is the probability that if you were to randomly select a government contract that it was given to a company in Mesa **OR** a company that provided "enhanced mobile satellite service" (in Product Detailed column)? Explain how you computed the probability. Write a sentence to interpret what the probability means in this context.

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D) What is the probability that if you were to randomly select a government contract that it is **NOT** a contract given out by the Department of Veterans Affairs? Write a sentence explaining what this means.

Questions for Task 2

A) Fill in the two-way table as shown in the second Excel sheet. *One entry (1200: DOA, Aircraft/Repair) is given for you already – you can use this to check that you are filtering correctly.* Copy and paste your two-way table here. After pasting, resize the table (in Word) as necessary so that it is easy to read.

B) Explain how you determined the value in cell H12 in the two-way table.

C) Write a sentence that explains the benefits of condensing this data into a two-way table.

D) Write a sentence that explains the downsides of condensing the data into a two-way table.

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E) Using the two-way table you created answer the following probability questions:

a. What is the probability that if you were to randomly select a government contract that it is a contract for the department of agriculture (DOA)? Explain how you computed your answer.

b. What is the probability that if you were to randomly select a government contract that it was for aircraft/repair? Explain how you computed your answer.

c. What is the probability that if you were to randomly select a government contract that it is a contract for the department of defense (DOD) **OR** for communication/software? Explain how you computed your answer.

d. You could think of the previous question as asking the probability of at least one of two events happening: "choosing a DOD contract" OR "choosing a communication/software contract". Are these two events disjoint? Explain your answer using the two-way table.

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