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| **Homework 7 (MA 412)**  **DUE: March 26th** | **Last name: Stark, Cameron** |

This homework is a refinement of homework 3 in which you will do 2 things:

* Give a more concise statement of your research project
* Fill in some additional details of you project (such as your data sources and type of inference you will perform)

Brevity and clarity are the keys: 2 sentences or less means exactly that: 2 sentences or less.

**I would suggest you download this form, type in your answers and then print it out to hand in.**

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| **Question** | **Response** | |
| State the question your project seeks to address  **(in 2 sentences or less)** | To see if there is distinguishable correlation and relationship between airport/date and delays/cancels and the ticket prices and get the relationship to be useful to an application user. | |
| State the purpose of your project  **(in 2 sentences or less)** | The purport of the project is to create an application that makes use of previous data on flights, in dealing with delays/cancels and ticket prices, to allow a user to plan for a trip with greater ease knowing the risk of cancellation and getting a good fare. | |
| What is the population?  **(1 sentence only)** | The population is U.S airlines that have their delay and cancel, and ticket fares available on the Bureau of Transportation Statistics site. | |
|  | Variable 1 | Variable 2 (if you have 2) |
| Enter your variables  **(list no more than 2 variables)** | Delay And Cancel amounts | Ticket Price |
| Give each variable’s data type | Quantitative, average flights per day | Quantitative, average price for a flight per day |
| Indicate the type of inference you plan to do. See class notes where we talked about types of inference we could do.  (You can indicate your choice by circling or highlighting the box with your choice after you print out the form if you want) | **Variables** | **Type of Inference** |
| 1 categorical | Hypothesis test OR confidence interval |
| 1 quantitative | Hypothesis test OR confidence interval |
| 1 quantitative and 1 categorical | Difference in means between 2 groups |
| 2 quantitative | Relationship between the variables  (linear regression) |
| 2 categorical | Association between the variables  (chi square test) |
| Give your data source  **(be specific and give web addresses)** | Various Datasets and reports housed on this site under the On-Time, Performance, and Financial Tabs  <https://www.bts.gov/topics/airlines-and-airports-0> | |