

## 1. Project Management Plan:

- **Stakeholder Communication**

- **Calls:**

- Weekly calls to update stakeholders on the status of the project and answer any questions they have.

- **Written Communication:**

- Weekly emails and newsletters with updates on the project progress.

- **Emergency/Contingency Plan:**

- Any urgent issues are communicated via email with a follow-up call scheduled within three days.

- **Schedule and Milestones**

- **Week1: Starting with Requirements**

- Create a list of the data questions you need to answer for your analysis.

- **Week 2: Designing Data Research Project**

- Design data research project.
    - Formulate a research hypothesis

- **Week 2: Sourcing the Right Data**

- Describe the data sets
    - Explain the relevance and limitations of each data set.

- **Week 3: Data Profiling & Integrity**

- Create a data profile for each data set.
    - Include information on data types, data integrity issues,
    - Cleaning, summary statistics in each profile.

- **Week 4: Data Quality Measures**

- Implement additional data quality measures to data profiles related to completeness, uniqueness, and timeliness.

- **Week 5: Data Transformation & Integration**

- Integrate data from two sources into one cohesive data set using data transformations.

- **Week 6: Conducting Statistical Analyses**

- Calculate the variance and standard deviation for key variables.
    - Identify variables with a potential relationship and test for a correlation.

- **Week 7: Statistical Hypothesis Testing**

- Formulate a statistical hypothesis regarding an outcome of interest around two groups in your data.
    - Conduct hypothesis testing and interpret the results.

- **Week 8: Consolidating Analytical Insights**
- ● **Create an interim report consolidating the findings.**
  
- **Week 9: Data Visualization & Storytelling**
- **Insights from the data in the form of a presentation and Tableau storyboard.**
  
- **Project Deliverables:**
  - **Storytelling with Data Presentations**
  - **Publish analysis as a Tableau Storyboard.**
  - **Record a video presentation.**
  - **Interim report consolidating the findings of the analysis.**
  
- **Audience definition:**
  - **Medical agency frontline staff (nurses, physician assistants, and doctors)**
  - **Hospitals and clinics using the staffing agency's services.**
  - **Influenza patients**
  - **Staffing agency administrators**
  
- 3. Take a look through the data sets in the project brief and write out 3 to 5 possible hypotheses based on the variables in your data sets. You can use the examples in the task description to help you.
  - Formulate your own hypothesis using the "if...then" format.
  - Make sure one of your hypotheses focuses on the relationship between age and influenza mortality, with age as the independent variable being measured. This is the hypothesis that will guide your research project throughout the rest of the Achievement.
  
- I. If an individual contracts flu over the age of 85, then he/she is less likely to survive complications arising from the flu.
- II. If uninsured, then the flu shot ratio is lower.
- III. The vaccination rates in lower income areas are lower, then the mortality rates are higher
  
- 4. Create a data wishlist for your age-influenza mortality hypothesis. You'll learn more about sourcing data in the next Exercise, but for now, simply focus on determining what data you'll need in order to test your hypothesis.
  - Vaccination status among people over the age of 85.
  - Mortality rate among vaccinated/unvaccinated individuals over age of 85.
  - Mortality rate among vaccinated/ unvaccinated individuals of other age brackets
  - Flu cases among different age brackets