West Texas A&M University

BI Roadmap

Mental Health Care Analysis

Date: July 2023

Author: Sera Hill

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- *Draft of jupyter notebook file Using pandas and jupyter notebooks, grouping and aggregation of data will need to be used, as well as visualizing categorical and statistical data. Also, training and modelling concepts will be used to predict future stats of mental illness for different demographics, age groups, etc.* *5*

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- *Sera Hill* 10
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BI ROADMAP - SUMMARY

Table 1: BI Roadmap Highlights

Project Release	N	N + 1	N + 2	N + 3
Timeframe	1 week	2 weeks, 2 days	1 week	
Key Deliverables	Data sources, questions, project proposal	Final project report	Refined report, jupyter file, database credentials	
Business Sponsor(s)	n/a	n/a	n/a	
Business Constituency	Dr. Babb	Dr. Babb	Dr. Babb	
Business Processes	n/a	n/a	n/a	
Business Applications	Jupyter notebooks, pandas, matplotlib		Jupyter notebooks, pandas, matplotlib	
Data Subjects	Mental health treatment, data.gov sources	Mental health treatment, data.gov sources	Mental health treatment, data.gov sources	
Source Systems	Jupyter notebooks, pandas	Jupyter notebooks, pandas	Jupyter notebooks, pandas	
Service Level Agreements (SLAs)	n/a	n/a	n/a	
Applications Retired	n/a	n/a	n/a	
Technology Required	Data files, pandas, jupyter environment	Data files, pandas, jupyter environment	Data files, API urls, pandas, jupyter environment	
Budget Allocation	n/a	N/a	n/a	
Project Team (IT & Business)	Me	me	Me	
Participating Resources (outside of direct project team)	n/a	n/a	n/a	

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BI RELEASE: PROJECT PROPOSAL

Timeframe

July 2, 2023 – July 9, 2023

Key Deliverables

- Project proposal
  Using the data sources from data.gov, my analysis will help answer the following questions: do individuals know they need help and are they receiving it? What age group is experiencing mental illness the most? Are there certain demographics that suffer more from mental illness? Can we predict possible problem demographics for mental illness symptoms?
- Draft of jupyter notebook file
  Using pandas and jupyter notebooks, grouping and aggregation of data will need to be used, as well as visualizing categorical and statistical data. Also, training and modelling concepts will be used to predict future stats of mental illness for different demographics, age groups, etc.

Business Constituency

- Dr. Babb

Business Applications

- Jupyter Notebooks, Python, Pandas

Data Subjects

This will go over the rate of individuals receiving or not receiving care for their mental illness, what demographics are the most affected by mental illness.

Source Systems

- Mental Health Care in the Last 4 Weeks – Dataset from data.gov

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- Indicators of Anxiety of Depression Based on Reported Frequency of Symptoms During Last 7 Days – Dataset from data.gov

Technology Required

- Computer
- Visual Studio code
- Python/pandas
- Jupyter Notebooks

Project Team (IT and Business)

- Sera Hill
    - Project lead/analyst

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BI RELEASE: FINAL PROJECT

Timeframe

July 10, 2023 – July 26, 2023

Key Deliverables

- Jupyter Notebook File
  This will include a dashboard for others to view the analysis and explore the datasets in question
- Written report summary
  This will summarize the problem and answers found in the analysis
- Database
  This will have the datasets from data.gov that are used for this analysis
- Future possibilities essay

Business Constituency

- Dr. Babb

Business Applications

- Jupyter Notebooks, Python, Pandas, VPS server, MySQL, PhpMyAdmin

Data Subjects

This will go over the rate of individuals receiving or not receiving care for their mental illness, what demographics are the most affected by mental illness.

Source Systems

- Mental Health Care in the Last 4 Weeks – Dataset from data.gov
- Indicators of Anxiety of Depression Based on Reported Frequency of Symptoms During Last 7 Days – Dataset from data.gov

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Technology Required

- Computer
- Visual Studio code
- Python/pandas
- Jupyter Notebooks
- VPS Server
- PhpMyAdmin
- MySQL

Project Team (IT and Business)

- Sera Hill
    - Project lead/analyst

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BI RELEASE: FINAL PROJECT & GRAD ENHANCEMENT

Timeframe

July 24, 2023 – July 30, 2023

Key Deliverables

- Jupyter Notebook File
  This will include a dashboard for others to view the analysis and explore the datasets in question
- Written report summary
  This will summarize the problem and answers found in the analysis
- Database
  This will have the datasets from data.gov that are used for this analysis
- PhpMyAdmin credentials
- Backup of MySQL database
- Future possibilities essay

Business Constituency

- Dr. Babb

Business Applications

- Jupyter Notebooks, Python, Pandas, VPS server, MySQL, PhpMyAdmin

Data Subjects

This will go over the rate of individuals receiving or not receiving care for their mental illness, what demographics are the most affected by mental illness.

Source Systems

- Mental Health Care in the Last 4 Weeks – Dataset from data.gov

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- Indicators of Anxiety of Depression Based on Reported Frequency of Symptoms During Last 7 Days – Dataset from data.gov

Technology Required

- Computer
- Visual Studio code
- Python/pandas
- Jupyter Notebooks
- VPS Server
- PhpMyAdmin
- MySQL

Project Team (IT and Business)

- Sera Hill
    - Project lead/analyst

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APPROVALS

Title	Name	Approval Date

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APPENDIX

Table 2: BI Roadmap - Release Details

Project Release	1.0	2.0	3.0	> 3.0
Timeframe				
Key Deliverables				
Business Sponsor(s) • **Business Executives(s)** • **Business Group(s)** • **IT Executive (if applies)**				
Business Constituency				
Business Processes • **Used with** • **Embedded in**				
Business Applications • **Used with** • **Exchange data with**				
Data Subjects				
Source Systems • **New Sources** • **Existing Sources** **Includes:** • **Business Applications** • **External Sources** • **Other Sources**				
SLAs • **Query Performance** • **Analytical Access** • **Data Distribution** • **Source Systems' Access** • **Data Quality**				

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Project Release	1.0	2.0	3.0	> 3.0
• Data History & Retention • Other				
Applications Retired • IT Applications • Data Shadow Systems				
Technology Required • Existing • New				

Budget Allocation
• Capital
• Labor
  ○ Internal
  ○ External
• Expenses, not Labor				

Project Team (IT & Business)
• Business Project Leader
• IT Project Leader
• Other Sub-Team Leaders
• # Resources (FTEs)
  ○ Internal
  ○ External				

Participating Resources (outside of direct project team) • Business • IT • External				

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