Marketing Strategies for UVW Executives using Data Visualization

CSE 578 Data Visualization

System Documentation Report

Group: 55

**Team Members:**

* Vishal Kakkar ([vkakkar1@asu.edu](mailto:vkakkar1@asu.edu))
* Zhengqi ( zliu332@asu.edu)

**Table of Contents**

1. **Introduction**
   1. **Overview of project**
2. **Roles and responsibilities**
3. **Team goals and a business objective**
4. **Assumptions**
5. **User Stories**
6. **Visualizations**
7. **Questions**
8. **Not doing**

1.Introduction

XYZ Corporation uses data to develop marketing profiles on people. These profiles are then sold to numerous companies for marketing purposes. You work at XYZ as part of a team of data analysts. Your team has just been given a new project working with UVW College, a local college looking to bolster enrollment

* 1. Overview of Project

Working with UVW to bolster Enrollment. UVW has chosen a salary as a key demographic to

determine criteria for marketing its degree programs. Need to develop marketing profiles focusing on $50,000 as a key number of Salary. Profiles need to be assessed on Individuals making less and more than $50,000 including age, gender, education status, marital status, occupation etc. Need to develop an application to find

**2. Roles and Responsibilities**

**2.1 Vishal Kakkar**

Analyzing dataset

Plotting various visualizations analysis and graphs

Normalization of dataset and updating different Labels to understand graphs

Processing operations to remove unwanted columns and converting categorical data into numerical set.

Visualization decision tree for further analysis

**2.2** Zhengqi

Analyzing dataset

Plotting various visualizations analysis and graphs

Normalization of dataset and updating different Labels to understand graphs

Processing operations to remove unwanted columns and converting categorical data into numerical set.

Visualization decision tree for further analysis

**3. Team Goals and business objective**

* Building a data model to develop marketing profiles and determines Individual’s income.
* Analyze data set of dataset provided
* Prepare data set based on different income and profiles provided
* Data Visualization of data set to predict correct profiles
* Forming marketing profile and analysis for Marking team to bolster enrollment for right audience and users.

**4. Assumptions**

* US Census Data provided is up to date and correct.
* Data set must have correct salary information
* Dataset needs some preprocessing
* Need to correlate data fields with values
* Need to take care of pre-requisites of test data
* Dataset have similar demographic characteristics have similar weights

**5. User Stories**

* **US1 : Data Processing**
  + **Analyze data**
  + **Remove invalid data**
  + **Adding labels to data objects**
* **US2: Feature Selection**
  + **Plot data of users against Salary of Users**
  + **Remove or update dataset to remove features that is unrelated to feature**
* **US3: Training Data**
  + **Take sampling of data to test it**
* **US4: Marketing Analysis for employees**
  + **Create visualization and graphs to understand data set**
  + **Using different feature characteristics to create appropriate marketing analysis and strategy**

**6. Visualization**

**We first try to get the connection with age and salary.**

**A screenshot of a cell phone

Description automatically generated**

**A screenshot of a cell phone

Description automatically generatedA close up of a logo

Description automatically generatedA screenshot of a cell phone

Description automatically generatedA screenshot of a cell phone

Description automatically generatedA close up of a logo

Description automatically generated**

**Origin country:**

**A close up of a map

Description automatically generatedA close up of a logo

Description automatically generated**

**Education years:**

**A screenshot of a cell phone

Description automatically generatedA close up of a logo

Description automatically generated**

**Working hours:**

**A screenshot of a cell phone

Description automatically generated**

**Marital statusA picture containing flower

Description automatically generated:**

**A screenshot of a cell phone

Description automatically generatedA screenshot of a cell phone

Description automatically generatedA screenshot of a social media post

Description automatically generatedA picture containing screenshot

Description automatically generated**

**Occupation:**

**A close up of a device

Description automatically generatedA picture containing screenshot

Description automatically generatedA screenshot of a social media post

Description automatically generatedA close up of a logo

Description automatically generated**

**Race:A close up of a logo

Description automatically generatedA screenshot of a cell phone

Description automatically generatedA close up of a map

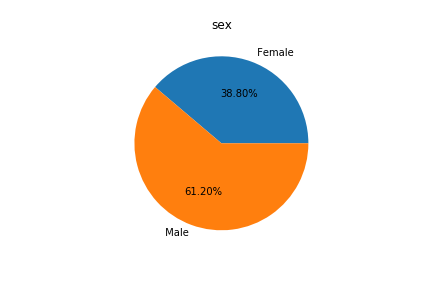
Description automatically generatedA screenshot of a cell phone

Description automatically generatedA screenshot of a cell phone

Description automatically generatedA screenshot of a social media post

Description automatically generatedA close up of a logo

Description automatically generated**

**Sex:A screenshot of a cell phone

Description automatically generatedA screenshot of a cell phone

Description automatically generatedA screenshot of a cell phone

Description automatically generatedA screenshot of a cell phone

Description automatically generatedA close up of a logo

Description automatically generated**

**Work\_class:A screenshot of a cell phone

Description automatically generatedA screenshot of a cell phone

Description automatically generatedA screenshot of a computer

Description automatically generatedA picture containing room

Description automatically generated**