**Requirements Documentation**

**Survey System**

**Lizard League Software**

**1. Introduction**

Scope of the product: To construct a software program to track surveys, their results, and analyze those results.

Definitions:

Survey: A method used to obtain information for quantitative research.(1)

Analytics: The discovery and communication of meaningful patterns in data.(2)

**2. General description**

**Product perspective:** This product is being developed to fulfill a need within the business community. Many businesses and government agencies base their past, present, and future examinations upon statistical analysis. This program will offer a simplified tool to gain the statistics used for these examinations.

**Product functions:** The user will be able to tailor a survey that can gather information for their company’s needs. Upon creation of a survey, the user will be able to administer the tool within their decided demographic and given options what to do with the results.

**User characteristics:** The end users will be company’s employees tasked with gathering information used to steer the organization.

**General constraints:** The limitation of the software is the creation of the questions. Without prior knowledge concerning a company’s needs it would be impractical to attempt creating default questions for the user. Therefore the user will have to bring to the program questions already worded.

**Assumptions and dependencies:** The software will be developed for a Windows operating system. The assumption will be the user has a Windows system with Windows XP or later.

**3. Specific Requirements**

**GUI**

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| 1.0.0 | When the program starts, there will be an initial window that opens. This will be referred to as Window 1. |
| 1.1.0 | In Window 1 will be buttons for what to do next. |
| 1.1.1 | Window 1 will have a button for creating surveys. |
| 1.1.2 | Window 1 will have a button for going to another window (Window 2) where one can review or give surveys. |
| 1.1.3 | Window 1 will have a button for going to another window (Window 7) where users who take the survey can be added. |
| 1.2.0 | Window 2 will be where one can create the survey. |
| 1.2.1 | Window 2 will have a text field for the survey name. |
| 1.2.2 | Window 2 will have a text field for the question. |
| 1.2.3 | Window 2 will have four text fields for answers. |
| 1.2.4 | Window 2 will have a field for entering a correct answer if there is one. |
| 1.2.5 | The correct answer field in Window 2 will be optional. |
| 1.2.6 | Window 2 will have a button that when clicked will collect the data from the text fields. |
| 1.2.7 | Window 2 will have a button (Enter Question) that when clicked will clear the text fields, but leave the survey name so that a new question can be entered for the same survey. |
| 1.2.8 | Window 2 will have a Done button that will close Window 2, and return to Window 1. |
| 1.2.9 | The Done button cannot enter data. |
| 1.3.0 | Window 3 will be for reviewing, giving the survey, and viewing results. |
| 1.3.1 | Window 3 will have a drop down box that lists all the surveys that have been created. |
| 1.3.2 | The drop-down box in Window 3 will be used for selecting the survey to be reviewed, given, or analyzed. |
| 1.3.3 | Window 3 will have a button that when clicked will go to another window (Window4) where one will see the entire survey that was selected in the drop down box plus the possible answers. |
| 1.3.4 | Window 3 will have a button that when clicked will go to another window (Window 5) where one can give the survey. |
| 1.3.5 | Window 3 will have a button that when clicked will go to another window (Window 6) where one can view the survey results and analysis. |
| 1.4.0 | Window 4 will have text areas that display the survey. |
| 1.4.1 | Window 4 will have the name of the survey at the top. |
| 1.4.2 | The text areas on Window 4 will be uneditable. |
| 1.4.3 | Window 4 will have a Done button that will return the user to Window 3. |
| 1.4.4 | Window 4 will have a scroll bar when the survey exceeds the size of the window. |
| 1.5.0 | Window 5 will be used for giving the survey. |
| 1.5.1 | Window 5 will have the name of the survey at the top of the window. |
| 1.5.2 | Window 5 will have a variable number of uneditable text areas that each display a question from the survey and the possible survey answers. |
| 1.5.3 | Window 5 will have an option to have text fields where a user can enter an answer. |
| 1.5.4 | Window 5 will have an option to have radio buttons that a user can check for an answer. |
| 1.5.5 | Window 5 will have a Done button. |
| 1.5.6 | The Done button in Window 5 will cause the answers given to be saved and return to Window 1. |
| 1.5.7 | There will be a drop-down box with a list of survey takers who have not yet taken that survey. |
| 1.6.0 | Window 6 will be used for viewing the results and survey analysis. |
| 1.6.1 | Window 6 will have a scrollbar for when the results are larger than the window. |
| 1.6.2 | Window 6 will show a question, each result, and the number of people who chose each result. |
| 1.6.3 | Window 6 will show the percentage of people who chose each answer. |
| 1.6.4 | Window 6 will highlight which answer was the correct answer if there was a correct answer. |
| 1.6.5 | Window 6 will show the total number of people who took the survey at the top of the window. |
| 1.7 | Window 7 will be where one can add user details for a user taking the survey. |
| 1.7.1 | Window 7 will have labels for each text field describing what goes into a text field. |
| 1.7.2 | Window 7 will have text fields for the user's first and last names. |
| 1.7.2 | Window 7 will have text fields for the user's full address. |
| 1.7.3 | Window 7 will have a text field for the user's phone number. |
| 1.7.4 | The text field for the address will be optional. |
| 1.7.5 | The text field for the phone number will be optional. |

**Database**

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| 2.0.0 | All survey data will be stored in a SQLite database. |
| 2.1.0 | The survey database will store the following: |
| 2.1.1 | Survey name |
| 2.1.2 | Survey questions |
| 2.1.3 | Possible answers to the survey questions |
| 2.1.4 | Any correct answers to survey questions if there are any |
| 2.1.5 | The answers users provided to a survey |
| 2.1.6 | The information of the user who takes the survey. |

**User Functionality**

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| 3.0.0 | When creating a survey, users can enter any number of questions for a survey. |
| 3.1.0 | When creating a survey, users can only enter up to 4 possible answers for a survey question. |
| 3.1.1 | The answers to a survey can only be a, b, c, or d. |
| 3.2.0 | When creating a survey, users can enter fewer than 4 possible answers for a survey. |
| 3.3.0 | When creating a survey, users must enter at least 2 possible answers for a survey. |
| 3.4.0 | When creating a survey, a user may specify that there is a correct answer and what that correct answer is. |
| 3.5.0 | Users may create as many surveys as the database can hold. |
| 3.6.0 | When creating a survey, a user must enter at least one question. |
| 3.7.0 | To have a question entered into the survey, the user must click the Enter Question button. |
| 3.8.0 | To quit entering questions, the user must click the Done button. |
| 3.9.0 | A user can view the results of a survey. |
| 4.0.0 | When a user chooses to view or give a survey, the user may choose any of the currently existing surveys. |
| 4.1.0 | A user can choose to give a survey. |
| 4.2.0 | When giving a survey, a user must answer all the questions. |
| 4.3.0 | When giving a survey, a user may only choose from the possible answers. |
| 4.4.0 | A user can choose to view the results of a survey. |
| 4.5.0 | A user can choose to enter the information of a person they are giving the survey to. |
| 4.6.0 | A user that is entered into the survey takers can only take a particular survey once. |
| 4.7.0 | A user that is entered into the survey takers may take any survey that their name has not already taken. |

**Software Classes**

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| 5.0.0 | There will be a separate class for the code that has anything to do with the SQLite database. |
| 5.1.0 | There will be a class that is for connecting to the database class. |
| 5.2.0 | The database class will have an interface created for it. |
| 5.3.0 | The class that talks to the database class will have an interface created for it. |
| 5.4.0 | Each window of the GUI will have its own class. |

(1) <http://en.wikipedia.org/wiki/Survey>

(2) <http://en.wikipedia.org/wiki/Analytics>