

# Criterion B: Analysis

## Requirement Specification

### Proposed Solution

The proposed solution is to make a database of pictures for Amula Jambusaria, which will have photograph-specific fields and a record for each picture. The application that can be used is Microsoft Access 2013. Through the use of a database, Amula's pictures will be organized and she will be able to find them whenever she wants without wasting a lot of time.

### IT system requirements

#### Hardware

**Computer:** 500 GB HDD; 8 GB RAM; Manufacturer: Acer; 1.6 GHz CPU speed; Intel Core i5 processor; Model: Acer Aspire E1-572-6676; Needs internet access

**Amula Jambusaria's computer:** same as above

**Backup System:** 8 GB Lexar flash drive OR 1 GB Cloud Space

**Software:** Microsoft Access 2013 including the VBA editor

**Other pieces of hardware:** camera (to take pictures for the database), keyboard and mouse (to input information)

### System Interaction

The user will need to be proficient in using a web browser and an email service, such as Gmail. In the email, they will need to know how to attach files and send them.

### Input/Output Requirements

#### Input Requirements

- Forms and dialog boxes to input data
  - o Dialog box will be shown
  - o User will enter data
  - o Report will be displayed
- Menus to navigate
- Pictures as JPEGs to make records
- Information about the pictures, such as the date taken, subject, occasion of the event, and other related data
- Some information will be able to be found using reports

#### Output Requirements

- Reports based on information inputted in dialog boxes by the user
- Buttons on menus will lead to other menus, entry forms, or reports

### Processing

- Macros used to navigate database
  - o User will click button
  - o Database will do processes associated with the specific macro
    - Ex. opening a form or report
- Queries will be used to generate reports
  - o User will click button
  - o Dialog will box appear

- User will enter data
- Database will replace the user's answer(s) with the variable in the query
- Datasheet based on query will be created
- Report will be made based on the datasheet
- Report will be displayed

#### Security

There will be no password because it is not needed. The photos put in the database will be for sharing purposes anyway. The database does not contain sensitive information, either.

### Specific performance criteria

- a) Organize the pictures and data
- b) All parts of the database work as planned
- c) Make it easily navigable and convenient (user-friendly)
- d) Amula finds it intuitive
- e) Takes less time than before to find pictures
- f) User is able to figure out how to use it without exiting the database
- g) Looks visually appealing and professional

## Justification of chosen solution

A database is the best solution in this situation because it will be easy to use, organize Amula's pictures, save time when searching for pictures, and create reports that display pictures in an organized fashion.

The database will have specific fields and a record for each picture, allowing Amula to search for the pictures using pre-made queries. Pictures can be added easily through the use of forms and a main menu (also a form) can be used to make the database easier to navigate. Reports can be used to cleanly show pictures and some relevant data associated with them.

The appearance of the database can be made attractive by using actual photographs in the background. A form for instructions can be made to help the user figure out how to use some of the forms on their own. The rest should be intuitive, for example, putting clear titles on what the buttons do.

A database also allows for the input of pictures as fields whereas other possible solutions such as a spreadsheet do not. Apps would also be difficult to program with so much data. Since databases can have queries, searching for pictures will be easy.

The database will make the process of finding pictures much easier and faster as queries are very efficient in displaying data that is needed. These can be customized to what the user wants by using dialog boxes and letting the user enter some information.

I also have experience in making databases, so this will be easier than any other possible solutions. I have Access 2013 downloaded onto my computer as well so it will be easy to create a database.

Through the use of a database, Amula's pictures will be organized and she will be able to find the whenever she wants without wasting a lot of time.

Number of Words: 304