**Code Busters Four Barber Shop App**

Developed by: Code Busters Four

**Summary:**

This application provides a user-friendly interface, a database and files to better manage all that goes on in the average barbershop. This application will allow for barbers to add appointments for clients, generate clear and concise work schedules as well as weekly revenue reports. Barbers that utilize the traditional paper and pen inventory system will see that this will benefit them as well as their business.

**Output Files:**

This application will output three different text files. The text files are Revenue, Schedule, and Database Logs.

The Revenue File is generated by the program when the “Revenue Report” button is pressed on the user interface and is available in the File Directory. This will allow for the barber shop to deliver professional looking paperwork to their accountants for tax purposes.

The Schedule File is generated by the program when the “Work Schedule” button is pressed on the user interface.

The Database Logs File is generated when the program is running and when an invalid entry is attempted to be logged into the database.

**Functions:**

According to the Barber Functions interface, there are four main methods executed by the application. These four methods allow for the barber to add an appointment, generate a work schedule, create a revenue report and delete an appointment.

*Add an Appointment:*

First the application will attempt to connect to the database. The method takes six arguments. The arguments are the client phone number, client name, day and time of the appointment, the service requested and the price of the service. If the connection is successful, it will take the data from the input fields of the user interface, assign the arguments to the appropriate field data and add them to the database.

*Generate a Work Schedule*

This method creates a text file to hold all the work schedule information. The application will then attempt to connect to the database. If the connection is successful, the method will take the appropriate information from the database as long as there is more data to loop through. After all the data is searched through, it will be deliver output to the Schedule File and close the connection to the file.

*Generate a Revenue Report*

The method will create a text file to hold all the relevant information to make a revenue report. First the method attempts to connect to the database. If the connection is successful, the method will loop through the database and pull the necessary information. During this loop it will also calculate the total price of all the services provided. The information is then transferred to the Revenue File and the connection to the file is closed.

*Cancel and Appointment*

This function takes one argument called phone. This argument is then assigned in the phone to the data in the delete phone field of the user interface. To delete an appointment, the user must search for the client by his phone number. The method will attempt to connect to the database. If the connection is successful, the user can enter a phone number to identify the client. If the phone number matches a record in the database, that record is now removed and will not be included in any schedule generation nor any cost calculations.

**Clear Button:**

In the case that the user wants to start the form over, he can click the “Clear Form” button. This will display a blank form and allow for another action to take place. The day is automatically set to ‘Mon’ as a default. Time is set to ‘5pm’ and the selected service is set to ‘Cut’. This is done to stop the user from entering incomplete information into the database.

**Error Handling:**

There are a few errors that can come about due to human error. These errors include but are not limited to: an invalid phone number being entered, an invalid name being entered, no day, time or service selected, or looking for a phone number that does not exist in the database to delete it. If the phone number contains less than ten numbers or if the number already exists in the database, the information is not stored into the database and the error message is written in the Database Logs File. If any of the name, appointment day, appointment time or service fields are blank, the data will not be stored into the database.