PowerPoint Presentation Word Document

Slide 2) System Requirements:

Given there are multiple platforms such as cell phones, tablets and computers, we would like to hit most of these platforms to reach the highest possible user base. In order to achieve this high user base, we will need to optimize the program to run on lesser hardware. The program is designed to run on cell phones at least 3 generations back. The target cell phone platforms will be IOS, android, this will be in app form. In order to reach the rest of the users we will develop a web browser DriverPass application. The Driver Pass web browser will be able to run on various different types of hardware including computers and tablets. The web browser app allows us to hit multiple platforms instead of developing for specific platforms. If the user is using a device that supports the web browser and their hardware can run it, this program will be available to them. The last system requirement is access to the internet.

Slide 3) Use Case Diagram:

This diagram shows you the different access each user will have with the program. Students will have the most access to the program. Students will be able to log in, update personal information, take tests and setup on the road driving with an instructor. Students will also be able to view the current weeks assignments and view their grades. The administrator will oversee maintenance of the system. The administrator will have access to two different editing programs. One editing program will allow the administrator to view and update a student’s progress in case there was a new bug that stopped forward progress. The second editing program will allow the administrator to update the DriverPass main page with news or new driving laws. The final user will be the Driving Instructor. The Driving instructor will be able to schedule on the road training with a student as well as leave instructor feedback for the student to view after a session.

Slide 4) Activity Diagram

These two diagrams show the flow of the program and how the users interact with the system and the editing tools. The users send a specific request to the system and the system processes the request and sends information back. There are times where the administrator will send a request to the system and the system will interact with a separate program the editing tool. These diagrams not only give us a good idea how the program works, it also helps the programmers take this concept from design to code.

Slide 5) Security

In order to start a new account, a user will need to provide a case-sensitive user name and password. Case sensitive passwords double the possibilities, which helps avoid password hacking such as brute force. A brute force tactic is having the computer go down the list of possibilities until a log in is successful. When you double the amount possibilities, if the password is decent in length a very strong computer would be needed to achieve this. Another tactic our program will use will be a limit on the number of failed log-ins. If a user fails 10 times in a row, the account will be locked temporarily. The user will be advised to check their email to reset their password. Once the user logs in to their email and clicks on the password reset button, they will create a new password and be given access to their account again. This dual approach should help instill confidence in our program from customers point of view. Since this program will use a debit card to pay for the program, customer confidence will be very important. One final step for increased security will be the use of a VPN. A VPN stands for a virtual private network. This network has your computer connect to another computer that then connects to the programs you would like to. The advantages to a VPN are since your computer is not communicating directly with a program, your computer will be remained unharmed from viruses. Another benefit of a VPN is the use of encryption. Encryption is a safety measure that allows for only you and another source to communicate. No outsides sources will be able to intercept the data as they do not have the encryption key, so the data does not make sense. Security will be very important for this program, if your customers do not have confidence in your product, they will not use it. Therefore, this program will have multiple security features and may add more if necessary.

Slide 6) System Limitations

We want to hit the most possible users with a reasonable budget. We can’t release the program for all platforms and hardware, so we need to create some limitations. The program will run on cellphones that support android and IOS. The android and IOS platforms will be in the shape of an application. The application will release on Google Play, and Apple Store. Instead of developing for multiple systems we are opting for development on a web browser. Having the program on a web browser will allow us to develop for multiple platforms at once. This means Mac, Windows and Linux machines will all be able to run this program if the browser is supported. The web browser we will likely develop for will be google chrome. Google chrome is a very popular browser, and it supports Mac, IOS and Linux. Tablets and other small devices also have access to google chrome. The program will not be able to run on all operating systems though. Any operating system that does not support google chrome, android and IOS, will not be able to run the program. There is also a hardware constraint. Older phones or devices that do not have the hardware to run this program will also be excluded. This happens with every program, it’s impossible to develop for everything so you pick the option that gives you the greatest coverage for a reasonable cost, which is what we have done here.