

Volere Requirements

CSC 4243

Interface Design and Technology

Benjamin K Guitreau

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Project Drivers

The Purpose of the Project

Our goal is to bring to the attention of passersby and others in an airport setting various types of local Louisiana cuisine. Many people pass through an airport and know next to nothing of the local culture and/or cuisine. By strategically placing the kiosk, our intention is to inform the consumers and to produce business for local area restaurants. We would also like to expand from cuisine to local tourist attractions at some point.

The Stakeholders

Our main clients will be tourists and fliers on layover in the airport. These clients will become potential customers to the local eateries in the area as they search for the foods found on the kiosk.

Project Constraints

Mandated Constraints

The projected will be made to be presentable in a partially completed state no later than April 30, 2013, 10:30am, Frey 101. The current kiosk will be maintained on 80/20 structure, with the Surface attached to the 80/20 at about 30°. The 40"/42" LCD will be attached above the Surface vertically on the 80/20 structure with a landscape view.

If the project is deployed in a production environment (preferably the Baton Rouge Metro Airport), the kiosk will be constructed with an 80/20 stand for the Samsung Sur40 tabletop. The tabletop will be placed at an optimal angle of 30° and bolted to the flooring next to a wall. A 40/42" LCD television will be mounted to the wall and placed above the tabletop. The tabletop will run a modified version of the Windows 7 operating system that should not be updated unless the tabletop maintainer is aware of the process and in person to ensure that no unnecessary updates are made that may overwrite specific drivers/firmware built into the tabletop system. Ethernet may be provided and connected to the tabletop, but as the system will be running a local database, Ethernet may not be needed until any local or operating system updates need to be made.

Relevant Facts and Assumptions

The existing application is 1000 lines of HTML, CSS, and JavaScript. The finished product should drop the amount of lines of HTML to 500 and add another 500 lines of C#.NET. The images are stored in HTML storage files and will be moved to a database of they system administrator's choice at a later date. This kiosk will not allow users access to the internet. This kiosk will also not show any bias towards any institution.

Functional Requirements

The Scope of the Product

ITEM	Actor	Input & Output
Food Selection Cartouche	User	Food Type (in) Menu Item (out)
Menu Item Cartouche	User	Menu Item (in) Food Image (out)
Option Buttons	User	Option (in) Recipe (out) Nutrition (out) History (out)

Functional and Data Requirements

A local server running Node.js will be required. The following node modules will also be required to be installed using npm: (express and socket.io). As of this time, no database software will be required. In a deployment state, html storage files will be removed and data will be stored in a Mongo database.

Non-functional Requirements

Maintainability and Support Requirements

A system administrator with efficient to proficient knowledge of JavaScript and C# will be required. The sys admin shall also be knowledgeable in the Windows 7 operating system and the specific brand of Windows 7 that is used to operate the tabletop (due to firmware/drivers being catered to the Surface, the sysadmin will have to disallow updates and pay attention when updating the Windows software). In the deployment state, the sysadmin (or database manager if applicable) will need to be efficient in the use of MongoDB. The MongoDB requirement may be waived if the sysadmin/database manager wishes to switch to another database system. The sysadmin (or qualified persons of mechanical nature) will need to test the mounting of both the Surface and the LCD for loose screws or broken pieces.

Security Requirements

Since various users with various amounts of computer knowledge will be allowed to access the system, an administrator account shall be used for administration purposes only. A guest account (with only read permission and no write/execution permissions) shall be used for normal operations. All internet access needs to be disallowed in the guest user account and only allow localhost connections. A shield will be installed after deployment of kiosk to disallow removing the casier that fits over the visible screen of the Surface. This will disallow users from being able to remove the full-screen GUI and get into the components of the operating system.

Project Issues

Risks

The removal of the casier shield by a user can give anyone access to the GUI. From this point, a user can go back to windowed mode of the GUI allowing them access to the components of the system. By default, the system should be set on a guest user account (unless in maintenance mode by the sysadmin or qualified personnel) to disable access to the operating system and any possible writing to the system that could corrupt the system or data. Internet access (except for localhost) will be denied to the guest account to disallow users from the ability to surf the internet, possibly downloading viruses in the process. The mountings of both the Surface and the LCD need to be checked at least weekly, if not daily, to ensure that there is no risk of either falling on a user.

User Documentation and Training

The basic manual will be displayed upon the LCD in the "Home" phase of the UI. A help button will be available for when the user is perusing the UI and not at the "Home" phase in the case that a user doesn't have a clear idea of what to do or how to return to another menu. By default, if no cartouche is on the Surface, the system should return to the "Home" phase.