Brian Pugh
CSC 4243

Requirements Document

Project Drivers:

The Purpose of the Project:

- Background of the Project Effort:
    - The project was given to extend the group's efforts towards providing a human computer interactive project related to some form of culture. The project will provide an interface in which a person can explore a listing of various local food products and retrieve information about them. The products will range in categories and detail their recipe, background, and nutritional values.

- Goals of the Project:
    - The focus of our project is to provide an engaging way for our imagined interaction hero to explore and obtain information about local cultural foods.
    - We want the hero to be able to intuitively interact with our product and to be able to come away with some idea of the unique cuisine that their current location is known for.
    - We hope to enrich their visiting experience by providing them a list of items to look for in local restaurants or to be able to take away a recipe so they can continue the experience at home.

The Stakeholders:

- The Client:
    - The product is suited for numerous places in which visitors stop or pass through. These clients may be airports, cultural centers, or state information buildings. These types of venues often contain other forms of cultural information and advertisements making it an ideal location for this type of kiosk.
    - Due to the nature of the touch table certain outdoor venues would be unsuited for this type of interface.

- The Customer:
    - Since this product is capable of supporting a wide array of venues the typical customer would be similar to those listed in the client section.
    - Even though the design of the project is for cultural foods intended for cultural locations it would only take minimal adjustment to be suited for any food establishment. This would open a new avenue of customers as the product could display items pertaining to the customer's place of business.

- Other Stakeholders:
    - Information from the general public would be beneficial to the creation of the project. In the end, the main users and beneficiaries of the product would be average people interested in local cuisine.

- Personas:
    - Christine is a young woman in her mid-twenties. She is a home mother who works hard to take care of her husband and children day in and day out. Luckily, the family makes enough to support a yearly vacation which she looks forward to immensely. Being able to get away for a couple of weeks from the constant boring repetition that comes with working at home, she looks forward to getting the full experience of each place they visit. She is open to trying new cuisines and sampling the different things available at each new place.

Project Constraints:

Mandated Constraints:

- The project will be somewhat functional by April 30, 2013 for in-class juried presentations. The project should be able to demo fully for at least a few items in the list if not fully functional.
- Use of Sony touch surface and cartouches (minimum of 2) are necessary for all user interaction.
- Project should build on the concepts of previous projects 2 and 3 by increasing functionality and adapting to new interface media.
- Code will be in either Java or C# to meet the capabilities of the touch surface.

Relevant Facts and Assumptions:

- Project will provide data types: history, recipe, and nutritional information for each food item listed.
- Cartouches will provide tangible capability to select food categories and food items. Touch surface will provide turning on and off of various data types which will be displayed across the top screen.

Functional Requirements:

The Scope of the Work:

- The current project is written in javascript for use with mobile device and 6 screen combination.
- The new project is to port our current project to a touch table interface. This may require a rewrite of the program to C# to properly deliver a functioning product.
- The project will utilize byte tags for tangible menu control. This will require research into how byte tags are made as well as how screen recognition works in response to them.

The Scope of the Product:

- User will have access to use tangible items representing each cuisine category and food item to navigate through the program.
- By placing tangibles on the touch table visual representation of the menu should change to meet the options depicted by the tangibles.
- At time of item selection, user will have access to buttons available through the touch table to choose what data is to be displayed about the selected item. Screens will adapt to the turning on and off of various data buttons.

Non-functional Requirements:

Usability and Humanity Requirements:

- The product will attempt to be intuitive to use by separating the categories and items to different sides of the product and well labeled locations for tangible placement.
- The product will automatically revert back to original states as items are place and removed to relieve confusion of new arriving people. The idea being that simply removing the two items in the center will return the product to the original menu state.

Operational and Environmental Requirements:

- The product will be used by adults and should be placed at a height that allows for the touch table to be easily viewed and used.
- Due to the light dependability of the touch table, the kiosk should be placed in an indoor area or provide a covering that gives enough shade to prevent failure of table functionality.
- Product shall be small enough that the table can stick out at an angle from the wall for usability but not so far as to create a potential impedance of a walk path such as a hallway or overly trafficked areas.

Project Issues:

Open Issues:

- Current project only demos 5 items and want to be fully functional by time of project deadline.
- Group is currently unsure as to whether WPF is supported by the table which will determine whether we want to switch to C# for convenience or stick with the current javascript implementation.
- Group needs more examples of C# implementation of byte tags to ensure the tangibles perform as expected.

Costs:

- Project will make use of mat board for cartouche creation. Cost ranges depending on place of purchase. Have seen them run from 10 to 30 dollars for the size we are looking for. Current set size is 3 foot by 4 foot with inclusion of excess for waste and mistakes.

- Work load will be heavy and tight with other projects going on, testing and homework. Estimated hours are 15 hours per day for 5 days with total at 60 hours. This will be divided over 3 group members for around 5 hours per day.