

Coupons Nao!

Concept of Operations

COP4331_001, Spring 2011

Team Name: The A-Team

Modification History:

VERSION	DATE	WHO	COMMENT
v0.0	02/01/11	Taylor Kourim	First draft of concept of operations
v0.1	02/07/11	Stephen Bryant	Filled in most everything with some basic explanations

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The Current System

There is no current system, so this section is not applicable.

The Proposed System: Needs

The system needs to have a way for people to upload coupons to a central server. The system needs to be able to find a user's location, look up coupons from locations which are close by, and output them to the screen. The system needs a way of validating the coupons, removing expired coupons, and rating coupons. This system should be automated.

The Proposed System: Users and Modes of Operation

Users

The first user class is the client. Clients turn on the application and their location is shown via GPS or WiFi. They can also enter an address if they choose. The client browses for coupons and is responsible for reporting invalid coupons.

Next we have the submitter. The submitter may be a business or a person. It is their job to add coupons to the database, via a submission form and a location input. They can either choose to use their current location calculated via GPS and projected onto a map, or they can enter an address, which our application should convert to GPS coordinates.

Modes of Operation

The first mode of operation is map mode. The user browses coupons based on their location on the map. A map will be displayed with locations of close-by coupons.

The second mode of operation is browse mode. This displays a list of locations nearby instead of projecting them onto a map.

The third mode of operation is submission mode. This mode is where users submit the details of their coupons, including images, to the central server. It will consist of a submission form.

The Proposed System: Operational Scenarios

The normal operational scenario would be having users input good coupons before their expiration dates, having them displayed acceptably, and not getting overflowed with traffic.

A first disaster scenario would be spam. The users could abuse the coupon submission form, spam it, or upload unrelated photos. The users could spam comments or vote down good coupons.

Another negative scenario would be releasing the program, but finding that the user submitted content is not enough. Users from all over the world would logon and find nothing. In this case we would have to design a system to pull coupons from somewhere else, but this would be very difficult and improbable.

The Proposed System: Operational Features

Must Have:

- Geolocation
- A central database
- User submission
- Coupon Validation

Would Like to Have:

- Automated Coupon Validation
- UI
- Integration with Google maps
- Coupon Rating System
- Automatically pull coupons from electronic sources

The Proposed System: Expected Impacts

We expect the program to have an impact in the Orlando area. Because we're from Orlando, we will probably spend some time getting good coupons and submitting them to the system. Therefore, we expect thrifty college students to download the app on their droids for free, and use our system. Hopefully, we can generate enough interest that a community of coupon sharing develops.

The Proposed System: Analysis

Expected Improvements:

- Not applicable, there is no previous system

Disadvantages:

- Most content is user-supplied, difficult to build up from an empty database
- Dependency on Google Maps

Limitations:

- Precision of GPS in Android phones

Risks:

- Inaccuracy of GPS/Google Maps
- Credibility of deals and coupons

Alternatives and Tradeoffs:

- Make a coupon website instead of an app (easier, more competition)