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| Functional Design |
| The Client: Going Green |

**Revision History**

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| --- | --- | --- | --- |
| **Date** | **Revision** | **Description** | **Author** |
|  | 1.0 | Initial Draft | Team |
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# Introduction

## Overview

Carpooling for the Green Initiative must do the following:

* Allow users to set up, edit and delete their profiles.
* Allow users to find/create a carpool.

Carpooling for the Green Initiative should do the following:

* Provide an easy-to-use interface for the users.
* Provide 100% up-time.
* Be consistently designed throughout all screens.

Carpooling for the Green Initiative could do the following:

* Include a cost calculator for determining the cost for those in the carpool.
* Include duplicate functionality for re-creating the same group.
* Include a messaging system for the driver and commuters to communicate.
* Include a map to plot the locations of those in the carpool and to also plot a route for the driver.

Carpooling for the Green Initiative won’t do the following:

* Crash when used improperly.

<Small overview of what functionality GREEN INITIATIVE is doing. \*MoSCoW lists ease the task of producing an overview. MoSCoW is an acronym for what the product Must, Should, Could, and Won’t do. A Must equates to a requirement that must be satisfied; A Should is a high priority that should be included if at all possible; A Could is considered desirable, but not necessary. A Won’t should be self-explanatory>

## Terminology

| **Term** | **Definition** |
| --- | --- |
| Group | The individuals, including the driver, that commute together as designated by the system. |
| Meeting Place | Pre-determined meeting places for commuter groups. |
| To Work Group | The Carpool group that will take the users to work |
| To Home Group | The Carpool group that will take the users home |
| Fee Calculator | A feature that determines the cost each passenger will have to pay to cover gas cost. |
| Members | Users who have been accepted into a group |
| Driving Schedule | A list that tracks when a driver is designated to drive throughout the week |
| Leader | The Member that has Administrator privileges within a group |

## General Assumptions

<This section now covers all assumptions for the GREEN INITIATIVE, i.e., those for existing functionality that we may not be changing or assumptions that we are making as we design the GREEN INITIATIVE. Please revisit this section once the design is written as there will likely be more assumptions to add at that point.>

The following assumptions apply:

1. Application is installed on a smart-phone.
2. The user has currently active cell phone service.
3. The user is able to send text messages via SMS/MMS.
4. The user has Google Maps/Apple Maps installed on their device.

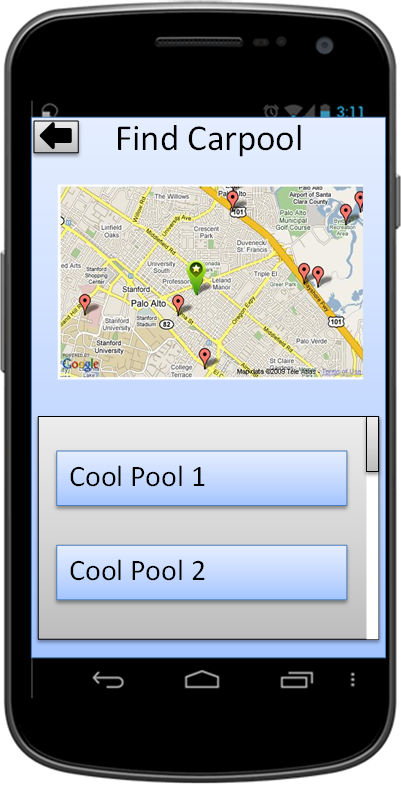
# GUI Design

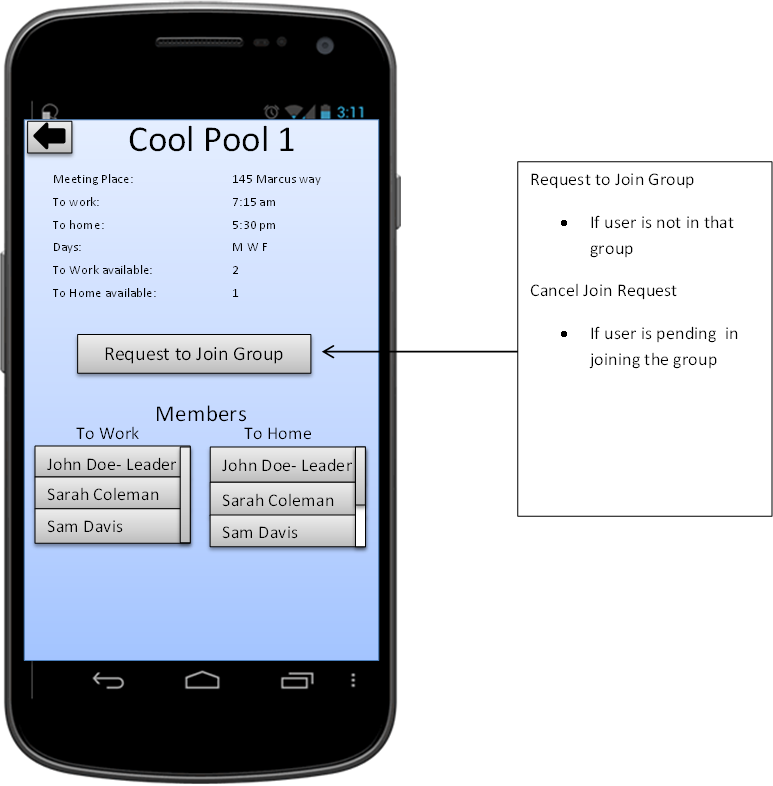












# Functionality

The following modifications/new development will be made in order to accommodate the functionality:

1. <Name of process, brief description of process, etc.>
2. <Name of process, brief description of process, etc.>
3. <Name of process, brief description of process, etc.>
4. <Name of process, brief description of process, etc.>
5. <Name of process, brief description of process, etc.>
6. <Name of process, brief description of process, etc.>

## <Detailed Functional Description>

<Detailed description of item above.>

## <Detailed Functional Description>

<Detailed description of item above.>

## <Detailed Functional Description>

<Detailed description of item above.>

## <Detailed Functional Description>

<Detailed description of item above.>

## <Detailed Functional Description>

<Detailed description of item above.>

# Special Character/ Unicode Considerations

<Do the fields being added for the application support special characters or Unicode data? Either provide consolidated list of new fields in this section or take this table and move to the section(s) where you are adding new fields and provide the details listed below.>

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Field Name** | **Required (Y/N)** | **Length** | **Character Type** | **Unicode/Special Character Accepted (Y/N)** |
| Person.FirstName | Y | 25 | Text | Y |
| Person.LastName | Y | 25 | Text | Y |
| Person.AddressStreet | Y | 255 | Text | Y |
| Person.AddressCity | Y | 255 | Text | Y |
| Person.AddressState | Y | 255 | Text | Y |
| Person.AddressZip | Y | 10 | Text | Y |
| Person.WorkStart | Y | N/A | Date/Time | N/A |
| Person.WorkLeave | Y | N/A | Date/Time | N/A |
| Person.PhoneNum | Y | 14 | Text | Y |
| Person.DriveSun | N/A | N/A | Yes/No | N/A |
| Person.DriveMon | N/A | N/A | Yes/No | N/A |
| Person.DriveTue | N/A | N/A | Yes/No | N/A |
| Person.DriveWed | N/A | N/A | Yes/No | N/A |
| Person.DriveThu | N/A | N/A | Yes/No | N/A |
| Person.DriveFri | N/A | N/A | Yes/No | N/A |
| Person.DriveSat | N/A | N/A | Yes/No | N/A |
| Person.WillDrive | N/A | N/A | Yes/No | N/A |
| Person.VehicleType | N | 15 | Text | Y |
| Person.MaxPassengers | N | N/A | Number | N/A |
| Person.Active | N | N/A | Yes/No | N/A |
|  |  |  |  |  |
| Group.AddressStreet | Y | 255 | Text | Y |
| Group.AddressCity | Y | 255 | Text | Y |
| Group.AddressState | Y | 255 | Text | Y |
| Group.AddressZip | Y | 10 | Text | Y |
| Group.CommuteDate | Y | N/A | Date/Time | N/A |
| Group.MeetTime | Y | N/A | Date/Time | N/A |
| Group.DepartTime | Y | N/A | Date/Time | N/A |
| Group.Driver | Y | N/A | Number | N/A |
| Group.Members | N | N/A | Number | N/A |
| Group.Active | N/A | N/A | Yes/No | N/A |

Special characters include but are not limited to.

[`~@#$%^\&\*(){}[]|":;'?><.,\_+=-/]

# Reference Data / New Security Nodes

Carpooling for the Green Initiative will use the following Reference Data to validate user credentials:

* UserID-for the User Name
* UserPass-for the Password.

< This list is needed for the Functional release notes. The new reference data for a GREEN INITIATIVE should be listed within the functionality section. To fill the section one must ask oneself “will the application be using data from another source to populate the database?”. This section should be used to concisely list out any new, modified or removed reference data. It should also list any defaults or if the data is to be added automatically at conversion or if it will require manual updates by the client. This section also includes any security nodes that need to add for the Technical release notes.>

<What info, if any, will be accessed from the host database?”

# Reporting Considerations

<This section is for the developers. This is used to document the changes made to the source code. >

<When working on this section, please take the following items into consideration: (Reporting developer can be responsible for most of the updates).

* Are there new reports, either batch or online?
* Are they on demand reports or scheduled reports?
* If batch reports, when should the reports be run: start of day or end of day?
* What are the parameters (if any) for the reports?
* List out the new objects added to the client universe
* List out any object modified or removed from the client universe>

# Language Considerations

**Portal**

The Client Portal supports multiple languages for online pages. <if the GREEN INITIATIVE is not going to be updating all of the languages please specify the languages that will be updated. If all will be updated, please note that all languages currently supported will be translated.>

Languages supported

All languages currently supported will be translated.

# Billing Considerations

(Assume a budget of $25,000.)

The client is provided a $25,000 budget for this service. With this budget, a team of four consultants will implement the following plan to assure the most effective use of the money provided.

Labor Cost:

* + 3 weeks – Development
  + 3 weeks – Testing
  + 6 weeks – Total Project Time

Service Cost

* Data Storage
* Security cost

<When working on this section, please take the following items into consideration:

* Are we offering a new service?
* Will the client need additional storage? If so, we need to discuss with Operations Managers potentially billing the client for it.
* Do we need more hardware to support the GREEN INITIATIVE? If so, we need to discuss with Operations Managers potentially billing the clients for it.
* Will Operations have additional work to perform to support the GREEN INITIATIVE? If so, we need to discuss with Operations Managers potentially billing the clients for it.>

# Operational Considerations

<When working on this section, please take the following items into consideration:>

## Client Impacts

<Do clients need to log a service request or perform another action for this GREEN INITIATIVE?>

## Operations Team Impacts

* <Is there anything that Operations needs to do as a result of this GREEN INITIATIVE? Will they need to run any programs, create CDs, etc.?
* Will there be additional monitoring that may need to be done?>

# Automated Testing Considerations

## Overview

<When working on this section, please take the following items into consideration:

* Are we adding new fields or values to a drop down?
* Are we removing any existing fields?
* Are we adding new transactions, etc. that we should add new cases to cover?>

## Window Declarations to be Created or Modified

<How will the application be displayed? Will it be in a separate window or will it be another portal view?>

## Test Cases to be Created or Modified

<Provide a high-level view of testing cases (provide details in the testing document)>

# Performance / SLAs Considerations

<Use this section to define any performance levels that must be met; (i.e. any uptime requirements, downtime maximums, response times, etc. >

# Database Size Implications / Message Volumes

<This section must be filled in. It is not sufficient to say that the volumes will increase. The GREEN INITIATIVE lead is responsible for ensuring the details are obtained from either the client or through production records. Volumes will be needed for all clients wanting to use this GREEN INITIATIVE. Client volume information should reside in the appendix doc.>

<When working on this section, please take the following items into consideration:

* Is anything additional being stored as a result of this GREEN INITIATIVE? (Incoming text, expanded text, etc)?
* Is the GREEN INITIATIVE adding more rows the database? Estimate the impact to database?
* Is the GREEN INITIATIVE adding more columns to existing rows? Estimate impact. >

# Data Center Implications

<When working on this section, please take the following items into consideration.>

## Data Center Security

* <Does a The Client server need to talk to a third party server/application? >
* <Do ports/firewalls need to be opened up to have servers talk when they usually don’t?>

## Software

* <Are there any updates to existing software?>
* <Is there any new software needed? This should include New Software as well as notations for any new Software features being used (i.e., another Adobe product, feature) or the need to install existing Software on new machines>

<For new Software, it should list the following:

* Vendor specs (name, any previous contacts, website),
* Exact Product name (e.g., IBM MQ Websphere Premier version 8.0001 for UNIX)
* Where the Software needs to run (e.g., agent server, object server)
* Information on any purchases already made (although this should have already been done through Operations).
* A recommendation from the developer based upon potential usage as to the type of licensing available/preferred (more than one may be available) – The choices would be CPU, Server, User/Seat, Usage.>

## Hardware

* <Do we need more servers to accommodate the functionality we are putting in to ensure we do not impact SLAs/performance?>

# Future Considerations

Future works:

* Leader can remove members from group
* Leader can reply to invite request via Messaging.
* App will be available cross platform

<Anything that CGI is not doing but would normally do in a GREEN INITIATIVE but may be forced to cut due to time should be put here.

For example, if we are forging synching between the new application and the Client portal due to timing, it should be noted here that the Client would need to fund the synching if it is something that they want in the future.

Consideration should also be given to the possibility of rolling this product out to other Client sites with minimal modification.>

# Issues

<List issue that may affect the project>

1. <Issue 1, details, etc.>
2. <Possible resolutions or feedback from others.>
3. <Possible resolutions or feedback from others.>