Application Development Plan

for the TUMap application

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Contents

1. Document Overview

The Software Development Plan describes the activities and tasks to be performed to develop the software product.

2. System Overview

TUmap is a highly customized campus specific Android application that aims to ease navigation around campus for new students and guests. It will be Android based and levy Google Maps API for routing and an open source mapping toolkit for our custom map. The interface will include a simple drop down menu of buildings on campus. Once a building is selected, a user's location will be automatically polled and a route will be traced to their destination. As the user moves, the phone will update the GPS location and the route if necessary.

3. Activities and Tasks

3.1 General Overview

This project assumes a five phase development plan in order to deliver our desired product; Planning Phase, Development Phase 1, Test Phase 1, Development Phase 2, Test Phase 2. The main functionality is completed and tested in Development and Test phase 1. Extra features are completed and tested in Development and test phase 2.

Planning Phase - This incorporates research, setting up development environments and agreeing on a core deliverable

Development Phase 1 - This phase incorporates the development of the core functionality

Test Phase 1 - This phase is concerned with testing functionality of all core functions.

Development Phase 2 - This phase incorporates the development of any addition features that will enhance the functionality of the application.

Test Phase 2 - This phase is concerned with testing functionality of all additional functions.

3.2 Application Phases

3.2.1 Planning Phase

Task	Planned Value	Start Date	End Date	Assignee	Predecessor Task	Successor Task
Set up individual development environments	6 hours per person	9/05/2012	9/12/2012	Team Task	None	None
Research specific API to use	20 hours	9/12/2012	9/17/2012	Team Task	None	Plan class structure
Plan out class structure: 10 hours	25 hours	9/17/2012	9/24/2012	Willy	Research API	Create Framework
Create framework for application	25 hours	9/17/2012	9/24/2012	Willy	Research API	Dev Phase 1

Total Time: 76 hours

3.2.2 Development Phase 1

Task	Planned Value	Start Date	End Date	Assignee	Predecessor Task	Successor Task
Design map overlay for Temple campus	30	9/28/12	10/29/12	Adama	Create Framework	Building description given through overlay
Import custom map	25	09/28/12	10/12/12	Sean	Update Map	Select start/end destination

Export Custom Map	15	09/28/12	10/12/12	Dave	Update Map	Import Map
Add list of buildings	10	10/01/12	10/22/12	Ben	Create Framework	Create Database
Add functionality to select start and end destination	20	10/22/12	11/04/12	Dave, Sean	Map Import	Routing
Create route from start to end destination	20	10/29/12	11/05/12	Dave, Sean	Select start and end destination	Use location as start point
Get geolocation	15	10/29/12	11/05/12	Adama	Map Import	Use Location as start point
Use location as start point	15	11/05/12	11/12/12	Ben	Get geolocation	Implement location updating
Implement location updating	15	11/13/12	11/20/12	Adama	Use location as start point	Implement route correction
Implement route correction	20	11/13/12	11/20/12	Ben	Implement location updating	
Update OSMDroid Map	15	9/19/12	9/23/12	Ben	None	Map Import
Create SQLite database	15	9/23/12	10/8/12	Willy	None	Add List of buildings
Implement search feature to lookup buildings in	5	9/27/12	9/31/12	Willy, Dave	Create framework	Room number parsing in search bar

database						
UI design	20	9/19/12	11/30/12	Willy	Create framework	None

Total Time: 250 hours

3.2.3 Testing Phase 1

Task	Planned Value	Start Date	End Date	Assignee	Predecessor Task	Successor task
Test Overlay	5	10/30/12	11/05/12	Adama	Create map overlay	None
Test start/end destination functionality	4	11/06/12	11/13/12	Sean	Select start/end destination	None
Test start/end point route functionality	7	11/13/12	11/20/12	Sean	Create route from start to end destination	None
Test geolocation positioning	7	11/13/12	11/20/12	Ben	Get geolocation	None
Test using geolocation as starting point	7	11/13/12	11/20/12	Ben	Use location as start point	None
Test location updating	7	11/21/12	11/28/12	Adama	Implement location updating	None
Test route correction	7	11/21/12	11/28/12	Ben	Implement route correction	None
Test database	8	10/9/12	10/15/12	Willy	Create SQLite database	None

functionality						
Test search feature	7	10/1/12	10/8/12	Dave	Implement search feature	None
Test UI functionality	18	11/30/12	12/2/12	Dave, Willy	UI Design	None
Unit Testing	15	10/22/12	10/29/12	Dave	Create framework	None

Total Time: 92 hours

3.2.4 Development Phase 2

Task	Planned Value	Start Date	End Date	Assignee	Predecessor Task	Successor Task
Location history list	10	11/05/12	11/12/12	Ben	Implement search feature to lookup buildings in database	None
Building description given through overlay	20	11/05/12	11/12/12	Ben, Adama	Design map overlay for Temple campus	None
Room parsing on search bar	8	10/22/12	10/29/12	Dave	Implement search feature to lookup buildings in database	None
Point of Interest filtering on map	20	10/29/12	11/05/12	Sean	None	None

Total Time: 58 hours

3.2.5 Testing Phase 2

Task	Planned Value	Start Date	End Date	Assignee	Predecessor Task	Successor Task
Test Location History	5	11/21/12	11/28/12	Ben	Location history list	None
Test overlay building descriptions	7	11/21/12	11/28/12	Ben, Adama	Building description given through overlay	None
Test room parsing	5	11/06/12	11/13/12	Dave	Implement room parsing on search bar	None
Test point of interest filtering	7	11/06/12	11/13/12	Sean	Point of interesting filtering on map	None

Total Time: 24 hours

4. Gantt Chart