1. Mobile Application

1.1. <Customer> Overview Use Case

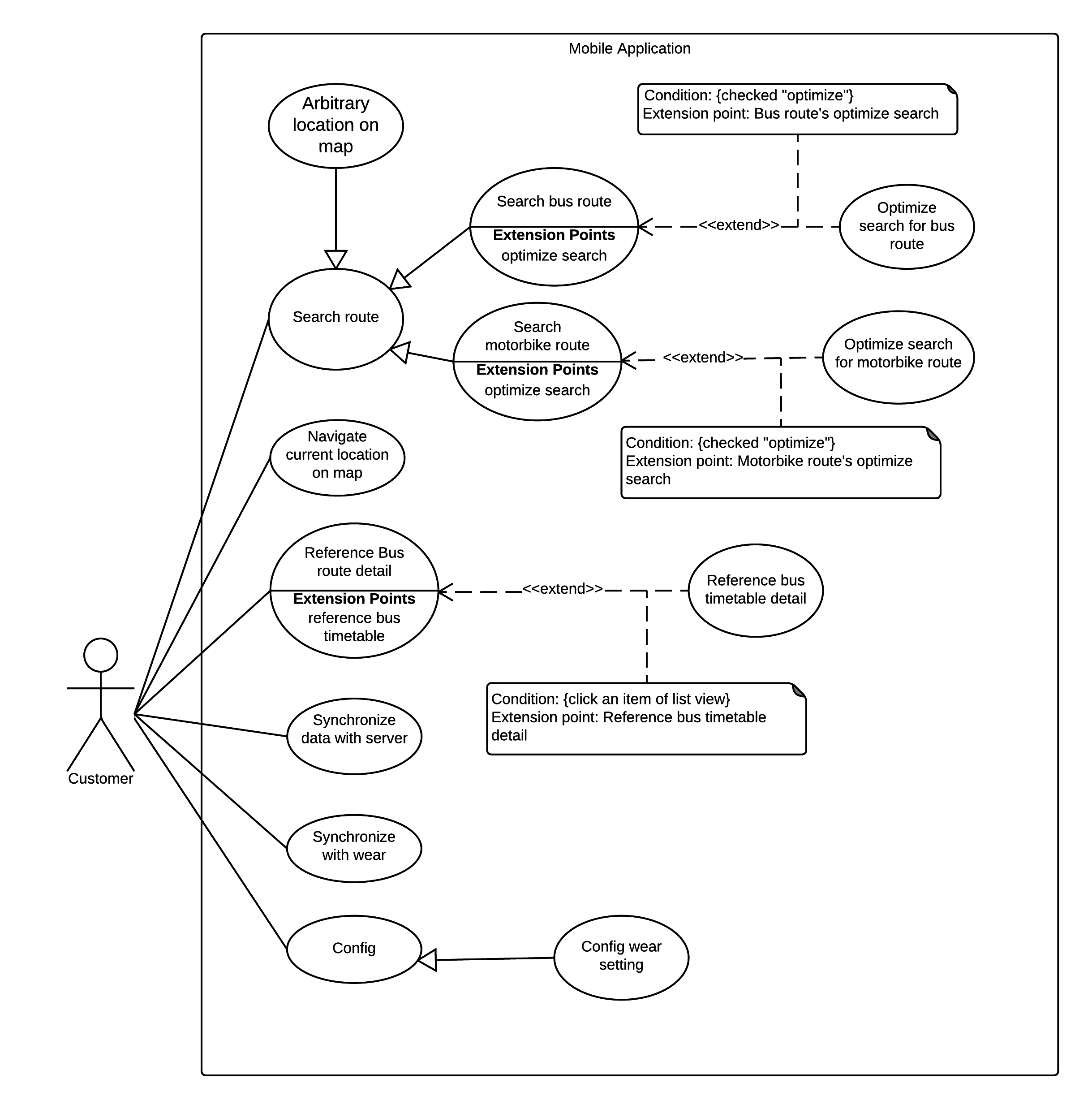


Figure 1 <Guest> Search Location

1. <Customer> Search Arbitrary location on map

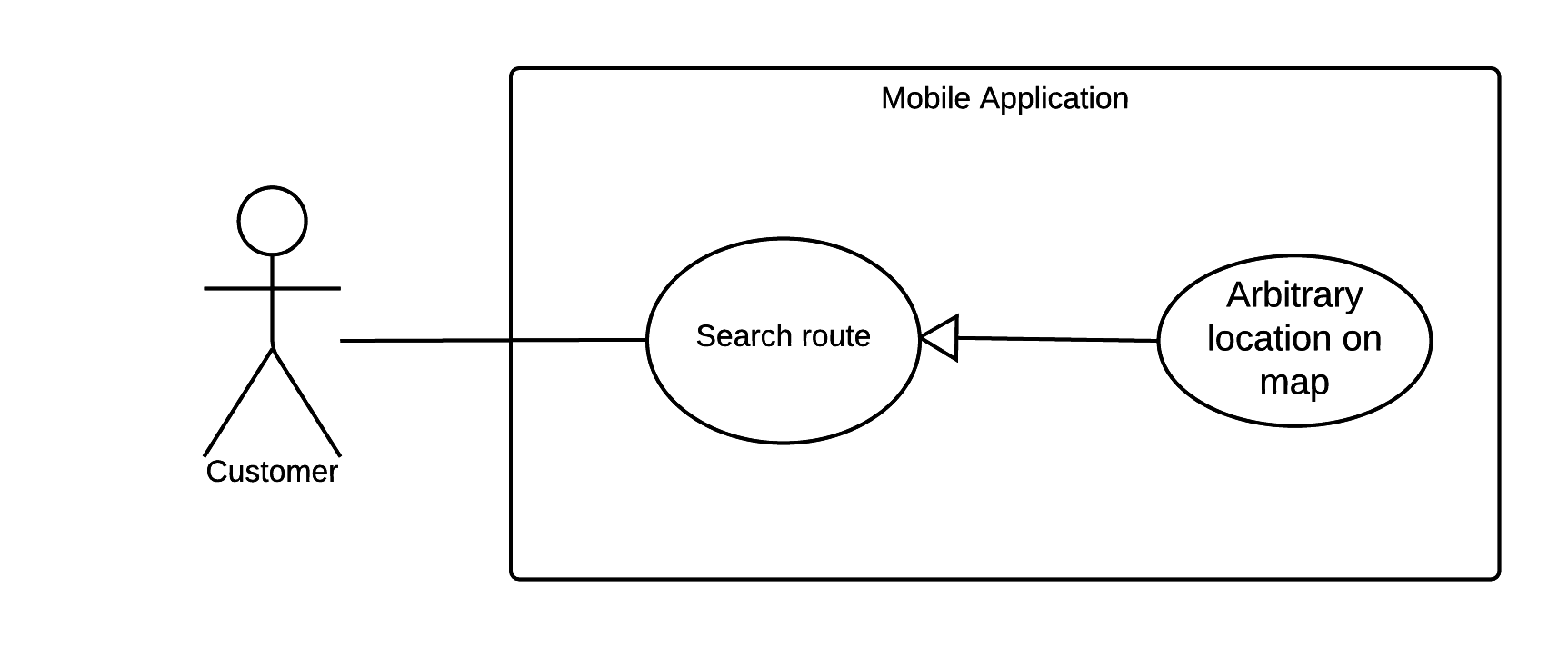


Figure 1 <Customer> Search Arbitrary Location on map

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| USE CASE – UC01 | | | |
| Use Case No. | UC01 | **Use Case Version** | 2.0 |
| Use Case Name | Search Arbitrary location on map | | |
| Author | NgoanTT | | |
| Date | 23/09/2015 | **Priority** | Normal |
| Actor:   * Customer   Summary:   * This use case allows customer search arbitrary a the location on map.   Goal:   * The system show location on map and give detail information about location. Customer can save or share this location.   Triggers:   * Customer sends location command.   Preconditions:  Post Conditions:   * Success: Show location on map and detail information about it. * Fail:   Main Success Scenario:   |  |  |  | | --- | --- | --- | | Step | Actor Action | System Response | | 1 | Customer goes to search view. | System display search view include:   * Location search: text input * Show list history | | 2 | Customer input arbitrary location command.  [Alternative 1] | System suggestion location. | | 3 | Customer sends command search | - System process and show location on map.  [Alternative 2] |   Alternative Scenario:   |  |  |  | | --- | --- | --- | | Step | Actor Action | System Response | | 1 | Customer command choice location from history | System process and show location on map. | | 2 | Customer sends command search | Show message notify to customer that search not find location. |   Exceptions:   |  |  |  | | --- | --- | --- | | Step | Actor Action | System Response | |  |  |  |   Relationships: N/A  Business Rules:   * The information is loaded from Google map. | | | |

Table 1 Use case UC01 - <Customer> Search Arbitrary Location on map

2.<Customer> Search Bus Route

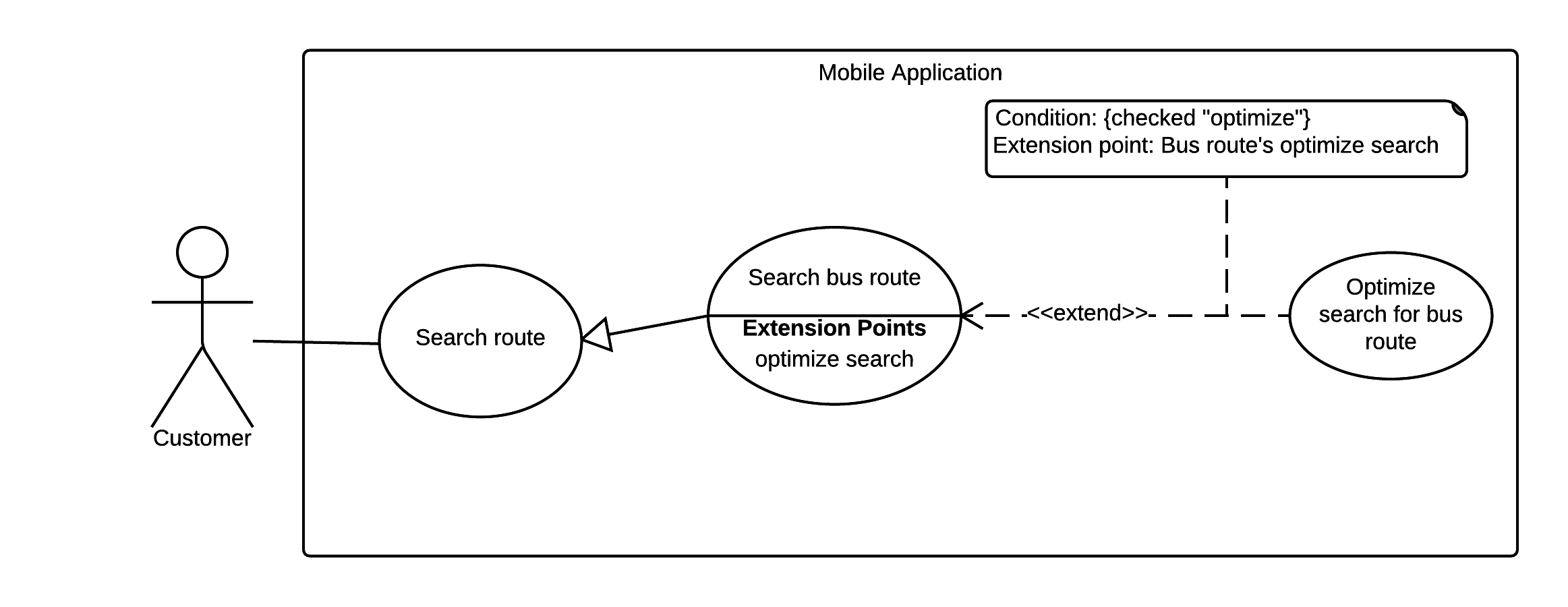


Figure 2 <Customer> Search Bus Route

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| USE CASE – UC02 | | | |
| Use Case No. | UC02 | **Use Case Version** | 2.0 |
| Use Case Name | Search Bus Route | | |
| Author | NgoanTT | | |
| Date | 23/09/2015 | **Priority** | Normal |
| Actor:   * Customer   Summary:   * This use case allows customer search bus route thought some locations (from two to four).   Goal:   * The system will suggest some optimal paths for customer.   Triggers:   * Customer sends start location and end location command. * Customer can sends some option command.   Preconditions:   * Customer send search route command.   Post Conditions:   * Success: System draw route from start location to end location and show on map. * Fail:   Main Success Scenario:   |  |  |  | | --- | --- | --- | | Step | Actor Action | System Response | | 1 | Customer goes to search route view. | Display search route view. | | 2 | Customer sends choice start and end location command. | Display new view with following information:   * Location : input text * Location with GPS * Location from history | | 3 | Customer choice start and end location. |  | | 4 | Customer sends search location command. | System show list with some optimal paths. [Alternative 1] | | 5 | Customer chooses one path command. | System will drag path on map and show detail about it. | | 6 | If customer chooses Departs at. | System show dialog with hours and minute. | | 7 | Customer chooses hours and minute. [Alternative 2] |  | | 8 | Customer sends OK confirm command.  [Alternative 3] | System show list with some optimal paths. [Alternative 1] | | 9 | If customer choice Option. | Display dialog require customer input some information:   * “điểm trung gian 1”: text * “điểm trung gian 2”: text * “tối ưu”:checkbox   Optimize paths: can be optional selected from these values:   * Tuyến ngắn nhất * Số lần chuyển tuyến tối đa * Số m đi bộ tối đa giữa hai trạm | | 10 | Customer chooses option command. |  | | 11 | Customer sends OK confirm command. [Alternative 3] | System show list with some optimal paths. [Alternative 1] |   Alternative Scenario:   |  |  |  | | --- | --- | --- | | Step | Actor Action | System Response | | 1 | Customer sends search location command. | System show list empty | | 2 | Customer chooses current time. |  | | 3 | Customer sends cancel confirm command. | System do nothing |   Exceptions:   |  |  |  | | --- | --- | --- | | Step | Actor Action | System Response | |  |  |  |   Relationships: N/A  Business Rules:   * The information is loaded from the system. | | | |

Table 2 Use case UC02 - <Customer> Search Bus Route

3.<Customer> Navigate Current Location On Map



Figure 3 <Customer> Navigate Current Location On Map

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| USE CASE – UC03 | | | |
| Use Case No. | UC03 | **Use Case Version** | 2.0 |
| Use Case Name | Navigate Current Location On Map | | |
| Author | NgoanTT | | |
| Date | 23/09/2015 | **Priority** | Normal |
| Actor:   * Customer   Summary:   * This use case allows customer search current location on map with GPS.   Goal:   * The system show current location on map and give detail information about location. Customer can save or share this location.   Triggers:   * Customer choice gps command.   Preconditions:   * Open GPS and Wi-Fi   Post Conditions:   * Success: Show location on map and detail information about it. * Fail:   Main Success Scenario:   |  |  |  | | --- | --- | --- | | Step | Actor Action | System Response | | 1 | Customer chooses GPS command. | System display dialog requires customer open GPS and internet. | | 2 | Customer sends OK confirm command. | System get location of customer and show current location on map. [Alternative 1] |   Alternative Scenario:   |  |  |  | | --- | --- | --- | | Step | Actor Action | System Response | | 1 | Customer sends Cancel confirm command. | System do nothing. |   Exceptions:   |  |  |  | | --- | --- | --- | | Step | Actor Action | System Response | |  |  |  |   Relationships: N/A  Business Rules: N/A | | | |

Table 3 Use case UC03 - <Customer> Navigate Current Location On Map

4.<Customer> Search Motorbike Route

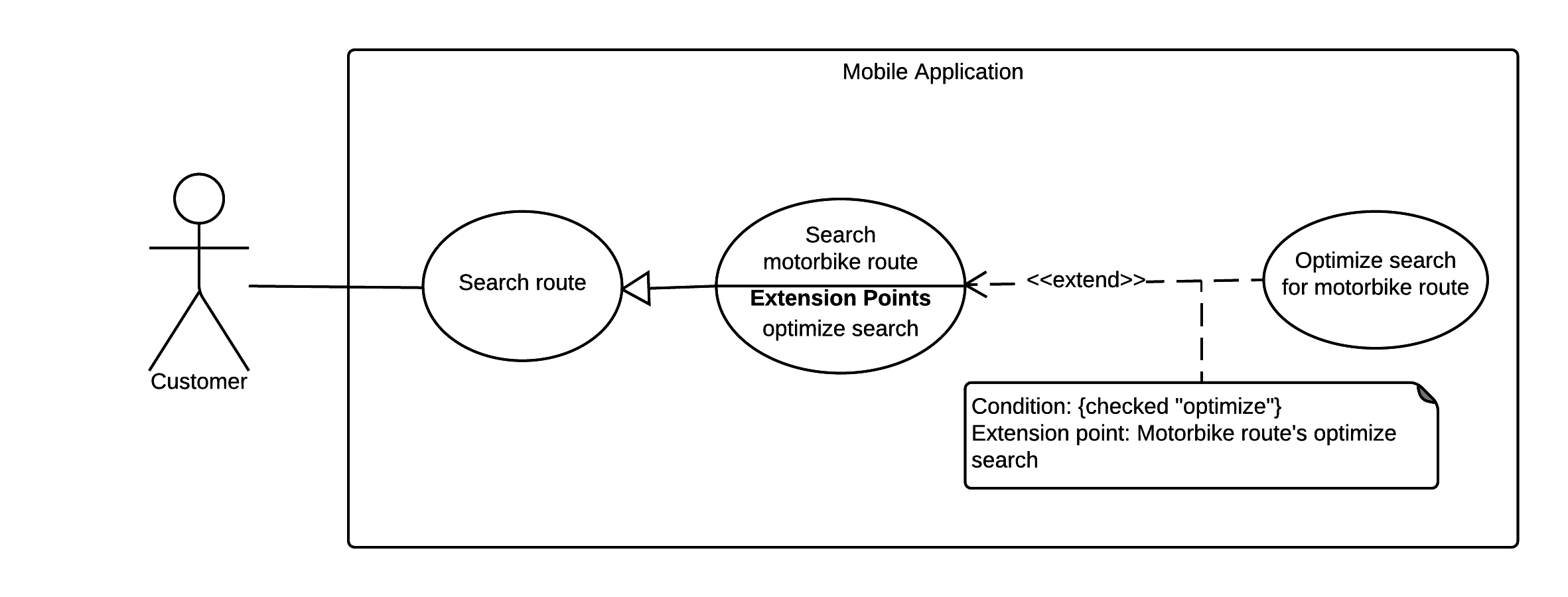


Figure 4 <Customer> Search Motorbike Route

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| USE CASE – UC04 | | | |
| Use Case No. | UC04 | **Use Case Version** | 2.0 |
| Use Case Name | Search Motorbike Route | | |
| Author | NgoanTT | | |
| Date | 23/09/2015 | **Priority** | Normal |
| Actor:   * Customer   Summary:   * This use case allows customer search motorbike route thought some locations (from two to four).   Goal:   * The system will suggest some optimal paths for customer.   Triggers:   * Customer sends start location and end location command. * Customer can sends some option command.   Preconditions:   * Customer send search route command.   Post Conditions:   * Success: System draw route from start location to end location and show on map. * Fail:   Main Success Scenario:   |  |  |  | | --- | --- | --- | | Step | Actor Action | System Response | | 1 | Customer goes to search route view. | Display search route view. | | 2 | Customer sends choice start and end location command. | Display new view with following information:   * Location : input text * Location with GPS * Location from history | | 3 | Customer choice start and end location. |  | | 4 | Customer sends command search. | System will drag path on map and show detail about it. | | 5 | If customer choice Option. | Display dialog require customer input some information:   * “điểm trung gian 1”:text * “điểm trung gian 2”: text * “tối ưu”:checkbox   Optimize paths: can be optional selected from these values:   * Tuyến ngắn nhất * Số lần chuyển tuyến tối đa * Số m đi bộ tối đa giữa hai trạm | | 6 | Customer chooses option command. |  | | 7 | Customer sends OK confirm command. [Alternative 2] | System show list with some optimal paths. [Alternative 1] |   Alternative Scenario:   |  |  |  | | --- | --- | --- | | Step | Actor Action | System Response | | 1 | Customer sends search location command. | System show message notify to customer that location incorrect. | | 2 | Customer sends Cancel confirm command. | System do nothing |   Exceptions:   |  |  |  | | --- | --- | --- | | Step | Actor Action | System Response | |  |  |  |   Relationships: N/A  Business Rules:   * When customer choice vehicle is motorbike. System will disable departs at. | | | |

Table 4 Use case UC04 - <Customer> Search Motorbike Route

5.<Customer> Reference Bus Route Detail



Figure 5 <Customer> Reference Bus Route Detail

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| USE CASE – UC05 | | | |
| Use Case No. | UC05 | **Use Case Version** | 2.0 |
| Use Case Name | Reference Bus Route Detail | | |
| Author | NgoanTT | | |
| Date | 23/09/2015 | **Priority** | Normal |
| Actor:   * Customer   Summary:   * This use case allows customer show detail all bus route.   Goal:   * The system display list bus route detail.   Triggers:   * Customer sends reference bus route detail command.   Preconditions:  Post Conditions:   * Success: System display list bus route detail on screen. * Fail:   Main Success Scenario:   |  |  |  | | --- | --- | --- | | Step | Actor Action | System Response | | 1 | Customer sends reference bus route command. | - System will display list bus route include:   * Route number * Route name   [Alternative 1] |   Alternative Scenario:   |  |  |  | | --- | --- | --- | | Step | Actor Action | System Response | | 1 | Customer sends reference bus route command. | Display list empty. |   Exceptions:   |  |  |  | | --- | --- | --- | | Step | Actor Action | System Response | |  |  |  |   Relationships: Reference Bus Timetable Detail  Business Rules: N/A | | | |

Table 5 Use case UC05 - <Customer> Reference Bus Route Detail

6.<Customer> Reference Bus Timetable Detail



Figure 6 <Customer> Reference Bus Timetable Detail

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| USE CASE – UC06 | | | |
| Use Case No. | UC06 | **Use Case Version** | 2.0 |
| Use Case Name | Reference Bus Timetable Detail | | |
| Author | NgoanTT | | |
| Date | 23/09/2015 | **Priority** | Normal |
| Actor:   * Customer   Summary:   * This use case allows customer can show detail about timetable of a bus route.   Goal:   * The system will display timetable of bus route   Triggers:   * Customer click an item of list view.   Preconditions:   * System have list of bus route detail.   Post Conditions:   * Success: System display detail timetable of bus route. * Fail:   Main Success Scenario:   |  |  |  | | --- | --- | --- | | Step | Actor Action | System Response | | 1 | Customer choice an item of list view in reference bus route detail command. | - System will display detail timetable of bus route.  [Alternative 1] |   Alternative Scenario:   |  |  |  | | --- | --- | --- | | Step | Actor Action | System Response | | 1 | Customer choice an item of list view in reference bus route detail command. | Show message notify to customer that bus route have not timetable. |   Exceptions:   |  |  |  | | --- | --- | --- | | Step | Actor Action | System Response | |  |  |  |   Relationships: N/A  Business Rules: N/A | | | |

Table 6 Use case UC06 - <Customer> Reference Bus Timetable Detail

7.<Customer> Configuration Wear Setting

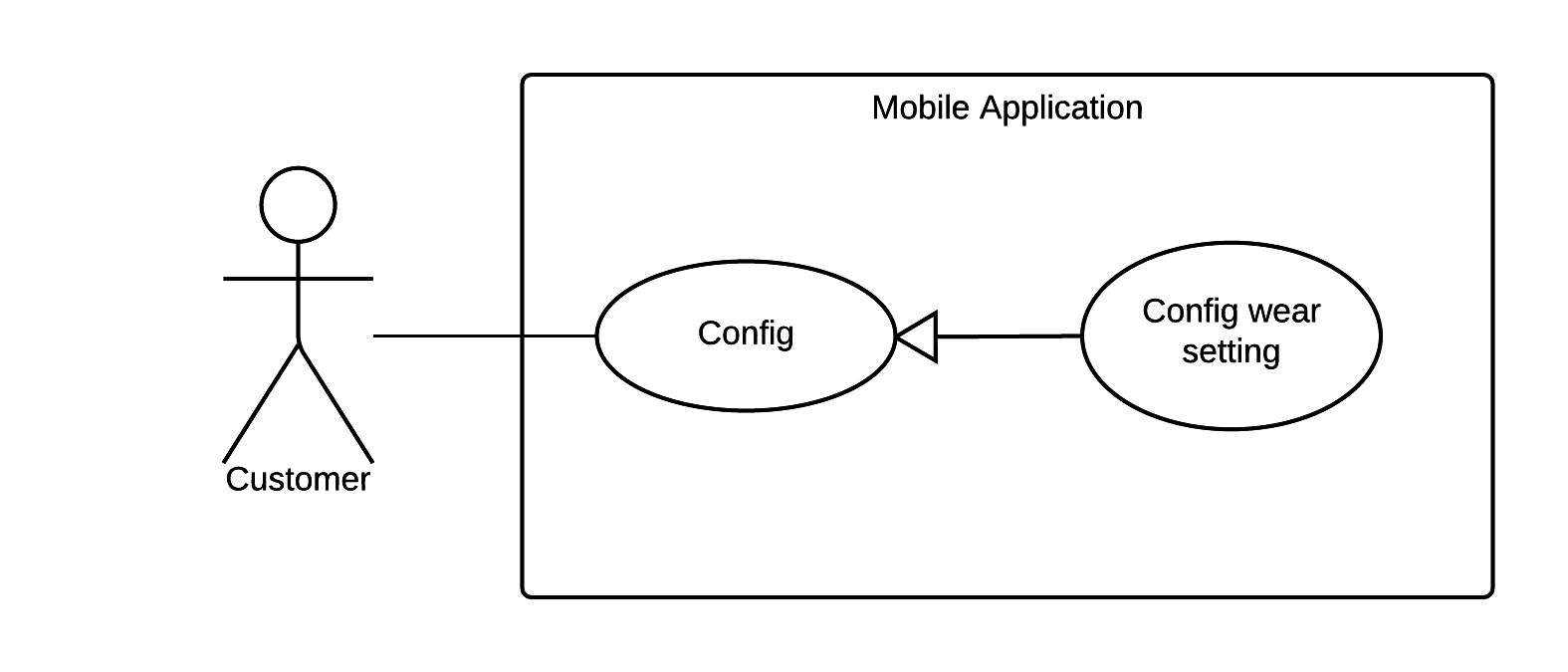


Figure 7 <Customer> Configuration Wear Setting

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| USE CASE – UC07 | | | |
| Use Case No. | UC07 | **Use Case Version** | 2.0 |
| Use Case Name | Configuration Wear Setting | | |
| Author | NgoanTT | | |
| Date | 24/09/2015 | **Priority** | Normal |
| Actor:   * Customer   Summary:   * This use case allows customer can configuration time to get GPS on wear device.   Goal:   * The system set new time to get GPS.   Triggers:   * Customer sends command execute set time.   Preconditions:  Post Conditions:   * Success: System set new time. * Fail: Show error message   Main Success Scenario:   |  |  |  | | --- | --- | --- | | Step | Actor Action | System Response | | 1 | Customer sends command to set new time. | - System requires information from customer:  Set time: number | | 2 | Customer input information. |  | | 3 | Customer send command to set time | - System set new time get GPS.  [Exceptions 1] |   Alternative Scenario:   |  |  |  | | --- | --- | --- | | Step | Actor Action | System Response | |  |  |  |   Exceptions:   |  |  |  | | --- | --- | --- | | Step | Actor Action | System Response | | 1 | Customer sends command to set time | Show message notify to customer that set time not success. |   Relationships: N/A  Business Rules:   * Set default time get GPS is 5 second. | | | |

Table 7 Use case UC07 - <Customer> Configuration Wear Setting

7.<Customer> Synchronize with Wear



Figure 8 <Customer> Synchronize with Wear

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| USE CASE – UC08 | | | |
| Use Case No. | UC08 | **Use Case Version** | 2.0 |
| Use Case Name | Synchronize with Wear | | |
| Author | NgoanTT | | |
| Date | 24/09/2015 | **Priority** | Normal |
| Actor:   * Customer   Summary:   * This use case allows customer can synchronize data between mobile and wear device.   Goal:   * Data have to synchronize between mobile and wear.   Triggers:   * Customer sends synchronize command.   Preconditions:   * Pair between mobile and wear device with  [Android Wear app](https://play.google.com/store/apps/details?id=com.google.android.wearable.app). * Search route on mobile device and choice one route.   Post Conditions:   * Success: Wear application have data from mobile application. * Fail: show message warning.   Main Success Scenario:   |  |  |  | | --- | --- | --- | | Step | Actor Action | System Response | | 1 | Customer sends command synchronize data. | - System process and show message notify to customer that synchronize successful.  [Exception 1] |   Alternative Scenario:   |  |  |  | | --- | --- | --- | | Step | Actor Action | System Response | |  |  |  |   Exceptions:   |  |  |  | | --- | --- | --- | | Step | Actor Action | System Response | | 1 | Customer sends command synchronize data. | Show message notify to customer that synchronize fail. |   Relationships: N/A  Business Rules: N/A | | | |

Table 8 Use case UC08 - <Customer> Synchronize with Wear

9.<Customer> Synchronize Data with Server



Figure 9 <Customer> Synchronize Data with Server

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| USE CASE – UC9 | | | |
| Use Case No. | UC9 | **Use Case Version** | 2.0 |
| Use Case Name | Synchronize Data with Server | | |
| Author | NgoanTT | | |
| Date | 24/09/2015 | **Priority** | Normal |
| Actor:   * Customer   Summary:   * This use case allow customer synchronize data with server from mobile application.   Goal:   * Data must to synchronize between server and mobile.   Triggers:   * Customer sends synchronize command.   Preconditions:  Post Conditions:   * Success: Show synchronize data success message. * Fail: Show error message   Main Success Scenario:   |  |  |  | | --- | --- | --- | | Step | Actor Action | System Response | | 1 | Customer send command synchronize data. | System process and show message to notify customer that synchronize data success.  [Exception 1] |   Alternative Scenario:   |  |  |  | | --- | --- | --- | | Step | Actor Action | System Response | |  |  |  |   Exceptions:   |  |  |  | | --- | --- | --- | | Step | Actor Action | System Response | | 1 | Customer send command synchronize data | Show message to notify customer that synchronize fail. |   Relationships: N/A  Business Rules: N/A | | | |

Table 9 Use case UC09 - <Customer> Synchronize Data with Server