Collector Tín

| Use-case name | Assign MCPs. |
| --- | --- |
| Use-case overview | To check and assign suitable MCPs to workers. |
| Actors | Back officers. |
| Preconditions | 1. The system is running.  2. The database is connected to MCPs.  3. Internet connection is available. |
| Trigger | Users click the “Assign MCPs” button. |
| Steps | 1. Retrieve all MCP’s information from the database.  2. Display a list containing suitable MCPs which have analyzed vacancy after previous assignment.  3. Overview the MCPs which the users click and ask if they are chosen.  4. Update the chosen ones to the worker’s schedule weekly. |
| Post conditions | Update the database and display the worker’s schedule on the screen. |
| Exception flow | If there are no available MCPs, return to the homepage and send a notification to users. |

| Use-case name | Assign vehicles. |
| --- | --- |
| Use-case overview | To check and assign suitable vehicles to collectors. |
| Actors | Back officers. |
| Preconditions | 1. The system is running.  2. The database is connected to vehicle storage.  3. Internet connection is available. |
| Trigger | Users click the “Assign vehicles” button. |
| Steps | 1. Retrieve all vehicles' information from the database.  2. Display a list containing suitable vehicles which have good status and are near to the working area of the collector.  3. Overview the vehicles which the users click and ask if they are chosen.  4. Update the chosen ones to the worker’s monthly schedule. |
| Post conditions | Update the database and display the worker’s schedule on the screen. |
| Exception flow | If there are no available vehicles, return to the homepage and send a notification to users. |

| Use-case name | Create a route. |
| --- | --- |
| Use-case overview | Create a suitable working route for the collectors. |
| Actors | Back officers. |
| Preconditions | 1. The system is running.  2. The database is connected to map and MCPs.  3. Internet connection is available.  4. Should have at least one MCP in the schedule of the collector. |
| Trigger | Users click the “Create a route” button. |
| Steps | 1. Retrieve all MCP’s information from the database.  2. Compute and find routes for the collector which has no conflict with the others and optimized in terms of fuel consumption and travel distance.  3. Display the routes on the screen, suggest the best one.  4. Overview the routes which the users click and ask if they are chosen.  5. Update the chosen ones to the worker’s weekly schedule. |
| Post conditions | Update the database and display the worker’s schedule on the screen. |
| Exception flow | If there are no available routes, return to the homepage and send a notification to users. |

Janitor Đạt

| Use-case name | Assign task |
| --- | --- |
| Use-case overview | To assign tasks to either janitors or collectors |
| Actors | Back officers |
| Preconditions | 1. The system is running  2. Internet connection is available  3. The back officer has login |
| Trigger | Back officer click the “Assign task” button |
| Steps | 1. Give option to display list of either janitors or collectors  2. Retrieve data on the database  3. Display the list of choice on the screen  4. Back officer goes through steps: “view worker’s information”, “assign area”, “assign troller” and “assign MCPs”  5. A confirmation message pops up on screen  6. The back officer presses to confirm |
| Post conditions | The task is assigned to the corresponding individual and other information is updated to the database. A message is sent to notice the chosen individual |
| Exception flow | None |

| Use-case name | View worker’s information |
| --- | --- |
| Use-case overview | To view worker’s general information before assigning task to them |
| Actors | Back officers |
| Preconditions | 1. Back officer has chosen either assign task to janitor or collector  2. The list of employees has shown on the screen  3. Back officer has determined the individual to receive task |
| Trigger | Back officer click on the individual’s name on the list |
| Steps | 1. Retrieve their information from the database  2. Display the chosen individual’s availability and their work calendar  3. Update the information on screen every 15 minutes in case other back officers has just assigned task to the janitor |
| Post conditions | Required information is displayed on the screen of users’ devices and is easy to read |
| Exception flow | 1. The worker is unavailable for the day (with permission)  2. Display the unavailable status on screen  3. Hide option to assign task  4. The back officer tap the left arrow on top left to go back to previous list |

| Use-case name | Assign area |
| --- | --- |
| Use-case overview | To assign area for janitor to do their work |
| Actors | Back officers |
| Preconditions | 1. The janitor is available for the day in “view worker’s information”  2. The back officer has chosen the janitor to receive task |
| Trigger | Users click the “Assign area” after viewing the janitor’s availability |
| Steps | 1. Retrieve the map with all the areas need cleaning from the database  2. Display the information on the user screen  3. Update the area in colors that show status: has none janitors, has more than 2 janitors, has more than 4 janitors  4. Back officer choose the suitable area and assign task |
| Post conditions | The task is selected for the janitor |
| Exception flow | None |

| Use-case name | Assign troller |
| --- | --- |
| Use-case overview | To assign troller to janitor for their work |
| Actors | Back officers |
| Preconditions | 1. Back officer has chosen a janitor to receive task  2. Back officer has assigned the working area to the janitor |
| Trigger | Users has chosen the working area for the janitor |
| Steps | 1. Retrieve all the trollers’ information  2. Pop up a window for the back officer to select troller from  3. The list is sorted according to the nearest distance to the chosen working area  4. The back officer choose a troller for the janitor |
| Post conditions | A troller is selected for the janitor |
| Exception flow | 1. Out of available trollers  2. Abort the assign task, area of the janitor  3. Return back to the main screen |