

Mail Database Project

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Mailroom 2.0

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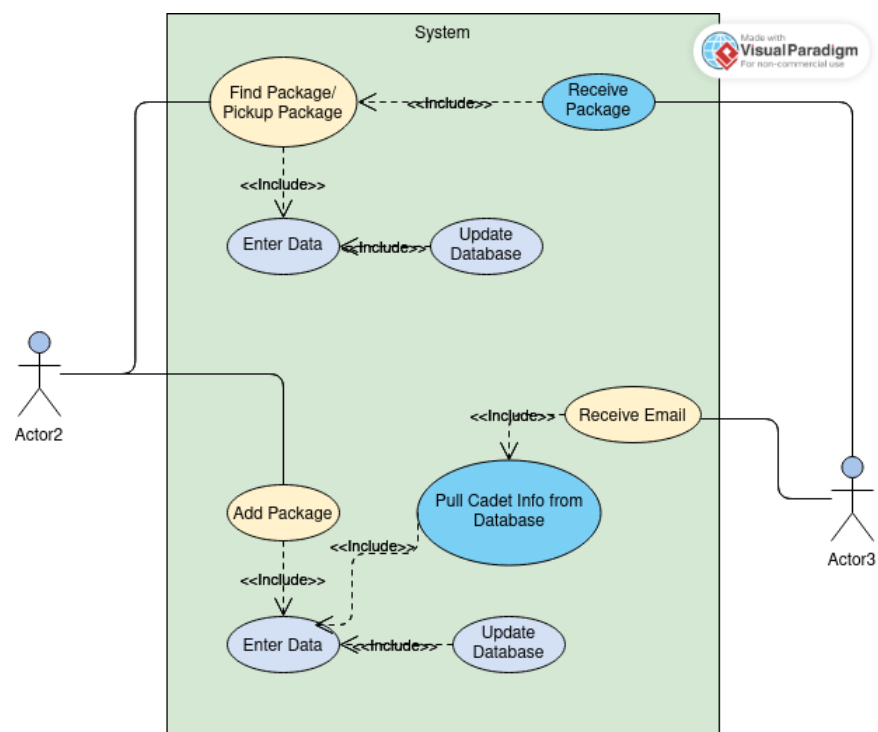
Functional Requirements

- Accept data entry
- Record tracking number and addressed box number for incoming packages
- Add entered information into sql database
- Associate incoming packages with Cadet information based on addressed box number
- Notify Cadet upon package arrival
- Record package status (Picked up or not)
- Search database for packages
- Display all packages matching search terms
- Easily update package status
- Developers will write code in an organized fashion, such that the system is easy to expand later.

Non Functional Requirements

- Will not misassociate packages
- Will allow package entry, given necessary data, within 5 seconds
- Will be easily navigable, with all system functions available within 5 clicks
- Will allow package retrieval, given sufficient search information, within 10 seconds
- Will never fail to retrieve Cadet information, given sufficient correct search information
- Will never allow a package entry without associated Cadet information and association

Use Case Diagram



Actor 2: Employee, Actor 3: Cadet

Meeting Summaries

Meeting 1 - 30JAN2024

- Decided on division of labor
- Agreed on general project scope
- Began formulating Functional Requirements

Meeting 2 - 01FEB2024

- Created Use-Case Diagram
- Finished Functional Requirements
- Started Non Functional
- Started individual Use Cases

Meeting 3 - 02FEB2024

- Polished Use-Case Diagram
- Completed Requirements
- Finished Individual Components

Individual Use Cases

UC02 - Find Package (Christian)	
Scope	SQL Mail Database
Level	User Goal
Actor	Mailroom Staff
and Interests	Mailroom Staff: Want efficient and simple query methods Cadets: Want staff to find their package quickly
Precondition	Mailroom has package Package properly stored in database Mailroom has correct Cadet info for search
Postconditions	Package information updated in database
Main Success Scenario	1. Cadet arrives at mailroom 2. Mailroom staff enters Cadet info 3. all relevant results are displayed 4. Mailroom staff retrieves package 5. Cadet receives package and leaves 6. Database updated
Extensions	3a. No results, mailroom staff checks the email sent to the cadet (should contain information to find the package manually)
Special Requirements	None
Technology and Data	None
Frequency	Nearly Continuous
Open Issues	None

UC03 - Add Package (Dylan)	
Scope	SQL Mail Database
Level	System goal
Primary Actor	Mailroom Staff
Stakeholders and Interests	Mailroom Staff: Want efficient and streamlined storage of packages Cadet: Wants timely and accurate notification of package receipt
Precondition	Package has been physically received by the mailroom staff
Postconditions	Package information has been added to SQL Database Email notification has been sent to Cadet Package has been stored appropriately
Main Success Scenario	<ol style="list-style-type: none"> 1. Mailroom staff scans the package 2. Automated system scans the package and reads tracking number/box number 3. Package status is updated in database along with timestamp and date 4. System generates and sends an email to Cadet 5. Staff stores the package in appropriate area/box number
Extensions	<ol style="list-style-type: none"> 1a. Invalid/incomplete information 1. Mailroom staff notified, providing option to manually input information 3a. Database upload failure 3. Mailroom staff notified, given guidance on resolving the issue 4a. Email notification failure 4. Mailroom staff notified, given guidance on resolving the issue <p>Cancel Operation: Mailroom staff may cancel the operation at anytime</p>
Special Requirements	Secure database is used to protect cadet security
Technology and Data	empty
Variations List	<ol style="list-style-type: none"> 1a. Automated scanning system 3a. SQL Database 4a. Email notification system
Frequency of Occurrence	Regularly: Anytime the mailroom receives a package
Open Issues	<p>Ensure seamless integration with current scanners</p> <p>User training</p> <p>Systems ability to handle high volume of packages during highly busy times</p>