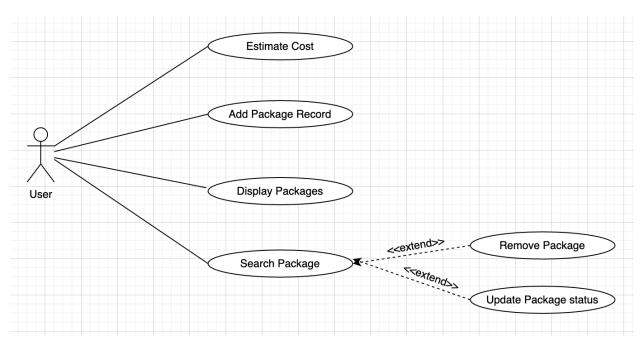
Mailing Service Final Project

Use case diagram



Cost Estimation

- Overview: Allows users to input the package weight and receive an estimated cost for shipping
- Actors: User

Add Package Record

- Overview: Enables users to record a new package by entering details such as weight, description, destination address, mailed date, and expected arrival date.
 The system generates a tracking ID
- o Actors: User
- Preconditions: User must have package details
- Postconditions: Package is recorded with a unique tracking ID

Display Packages

- Overview: Displays a list of packages with details such as description, weight, destination address, status, expected arrival date, and the last updated time.
- o Actors: User

Search Package

- Overview: Allows users to search for a package using its tracking ID and displays package details and tracking history
- o Actors: User
- Related use cases: Update package status, Remove package
- Update package status

- Overview: Users can update the status of a package (e.g., packed, in transit, delivered) and adjust the expected arrival date.
- o Actors: User
- o Preconditions: User must have searched for the package.
- o Postconditions: Package status or expected arrival date are updated.
- Related use cases: Search Package

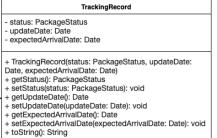
Remove package:

- Overview: Allows users to remove a package from the system using its tracking ID
- o Actors: User
- o Preconditions: User must have searched for the package.
- o Postconditions: Package is removed from the system.
- o Related use cases: Search Package

Class Diagram

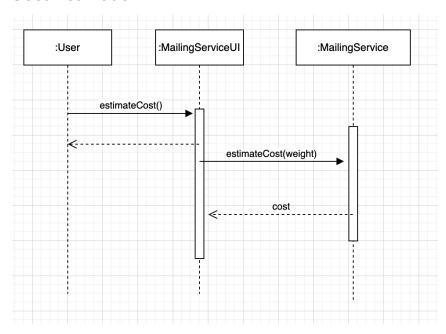
MailingServiceUl scanner: Scanner dateFormatter: SimpleDateFormat mailingService: MailingService + MailingServiceUI() + run(): void + estimateCost(): void + addPackage(): void + ddsplayPackages(): void + searchPackage(): void + updatePackageRecord(trackingId: int): void + deletePackage(trackingId: int): void - getDateInput(prompt: String): Date getHeader(): String (static) getTrackingRecordHeader(): String (static) <<use>>> MailingService packageDatabase: List<Package> count: int + estimateCost(weight: double): double + addPackage(weight: double, description: String, destinationAddress: String, mailedDate: Date, expectedArrivalDate: Date): int + getPackagesDetails(): String + getrackagesDetails(): String + searchPackage(trackingld: int): Package + updatePackageStatus(trackingld: int, status: PackageStatus, updateDate: Date, expectedArrivalDate: Date): void + removePackage(trackingld: int): void + generateTrackingId(): int Package

trackingld: int - weight: double - cost: double - description: String - destinationAddress: String - latestTrackingRecord: TrackingRecord - trackingHistory: List<TrackingRecord> + Package(trackingld: int, weight: double, cost: double, description: String, destinationAddress: String, latestTrackingRecord: TrackingRecord) + getTrackingld(trackingld: int): void + getTrackingld(trackingld: int): void + getWeight(t): double) + setWeight(weight: double): void + getDescription(string) + setDescription(description: String) + setDescription(description: String) + setDestinationAddress(string) + setDestinationAddress(string) + setDestinationAddress(string) + setDestinationAddress(stestinationAddress: String): void + getTrackingRecord(): TrackingRecord + setLatestTrackingRecord (trackingRecord) + toString(): String

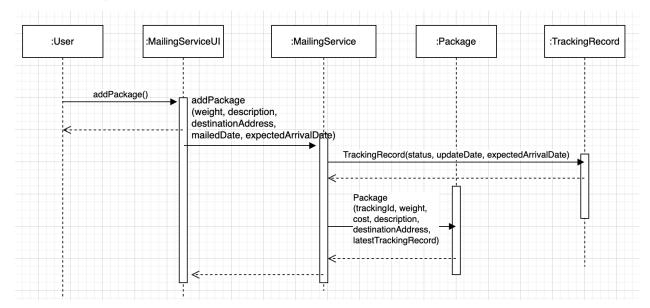


Sequence Diagrams

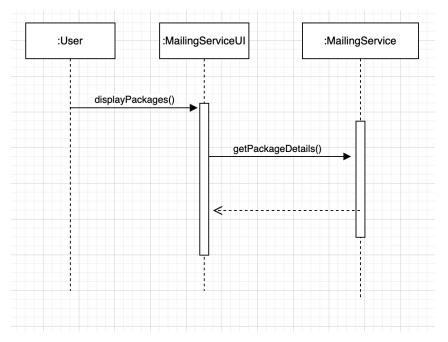
Cost Estimation



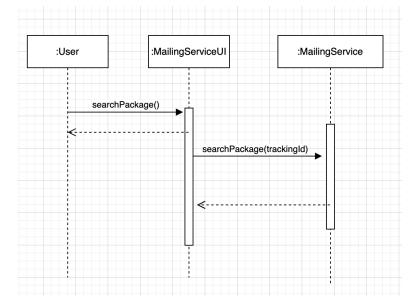
Add package record



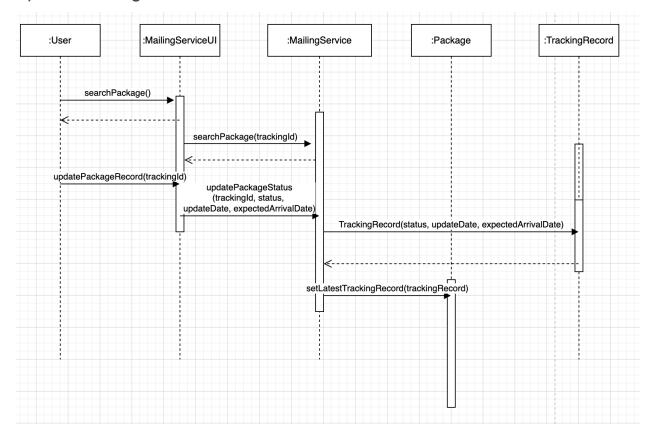
Display Packages



Search Package



Update Package Status



Remove Package

