

Hexagon

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Project Overview (Isabelle)



Set Up GitHub

Filters Labels 26 Milestones 1 [New issue](#)

☒ Clear current search query, filters, and sorts

| <input type="checkbox"/> | 6 Open ✓ 55 Closed | Author ▾ | Label ▾ | Projects ▾ | Milestones ▾ | Assignee ▾ | Sort ▾ |
|--------------------------|---|----------|---------|------------|--------------|------------|--------|
| <input type="checkbox"/> | <input checked="" type="checkbox"/> Create Chatroom Service (Back End) Story Points: 5 Task #4 #92 by amczuboka was closed 1 hour ago Sprint 4 Milestone | | | | | | 1 |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> Create Delivery Service (Back End) Story Points: 5 Task #2 #91 by amczuboka was closed 1 hour ago Sprint 4 Milestone | | | | | | 1 |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> Send delivery object from order-summary-dialog to payment page #90 by Guillaume-Lachapelle was closed 14 hours ago Sprint 4 Milestone | | | | | | |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> Implement distance calculation based on departLocation and arriveLocation Task #80 by Guillaume-Lachapelle was closed yesterday Sprint 4 Milestone | | | | 1 | | |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> Create button for frequency for companies requesting a delivery #77 by Guillaume-Lachapelle was closed 3 days ago Sprint 4 Milestone | | | | | | 1 |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> Create tests for "MyDeliveries" page. test #2 #76 by amczuboka was closed 2 days ago Sprint 4 Milestone | | | | | | |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> Create tests for chatroom customer service test #75 by Guillaume-Lachapelle was closed 19 hours ago Sprint 4 Milestone | | | | 1 | | |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> Create tests for summary page test #74 by Guillaume-Lachapelle was closed 2 days ago Sprint 4 Milestone | | | | 1 | | |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> Add button in summary page for employees to change tracking status Task #73 by Guillaume-Lachapelle was closed 2 days ago Sprint 4 Milestone | | | | 1 | | |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> Display items every time the form is changed in RequestDelivery page Task #2 #70 by Guillaume-Lachapelle was closed 2 days ago Sprint 4 Milestone | | | | | | |

TASKS

[Labels](#) [Milestones](#) [New milestone](#)

☒ 1 Open ✓ 2 Closed [Sort ▾](#)

Sprint 3 Milestones

Closed 2 weeks ago [Last updated 10 days ago](#)

Goal: Finalization of the implementation of the GUI for the main 4...(more)

100% complete 0 open 25 closed

[Edit](#) [Reopen](#) [Delete](#)

Sprint 2

Closed on Oct 24 [Last updated about 1 month ago](#)

Sprint 2 pertains to the system architecture, the use cases and the sequence diagrams of the delivery system.

100% complete 0 open 6 closed

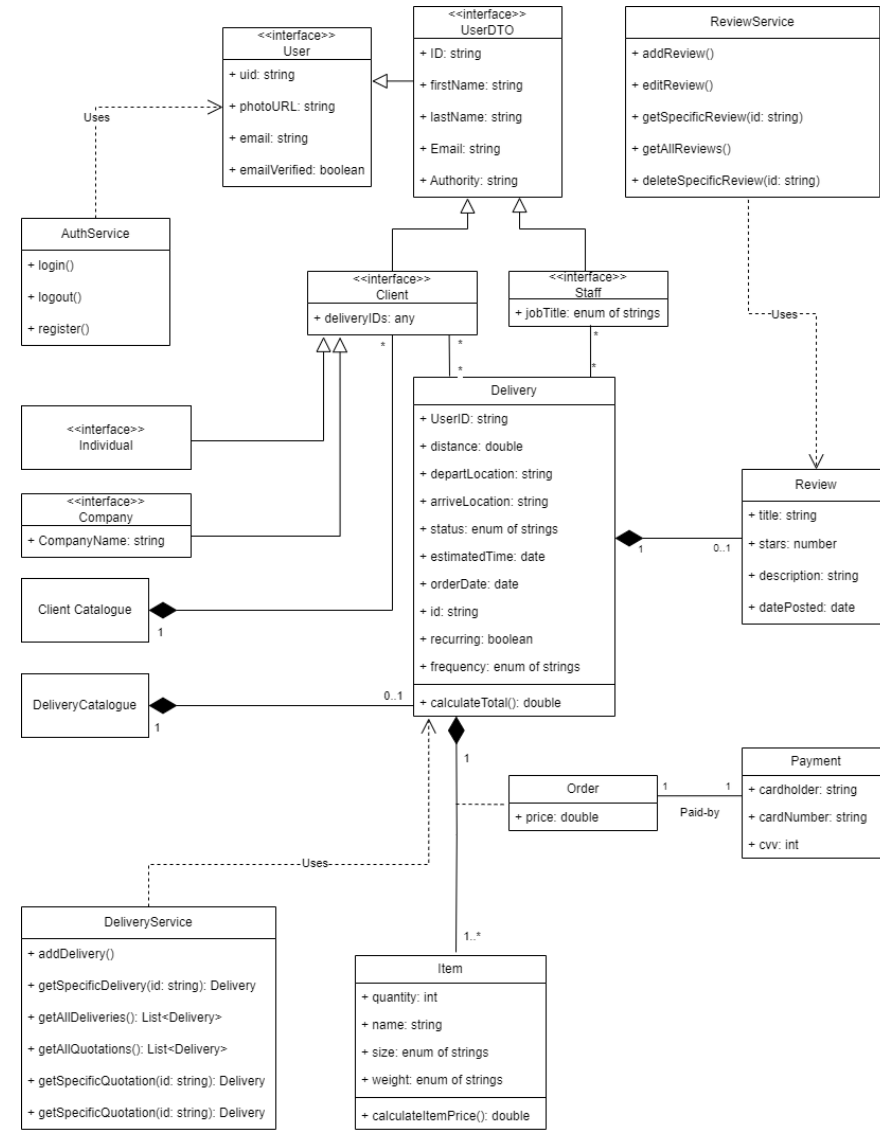
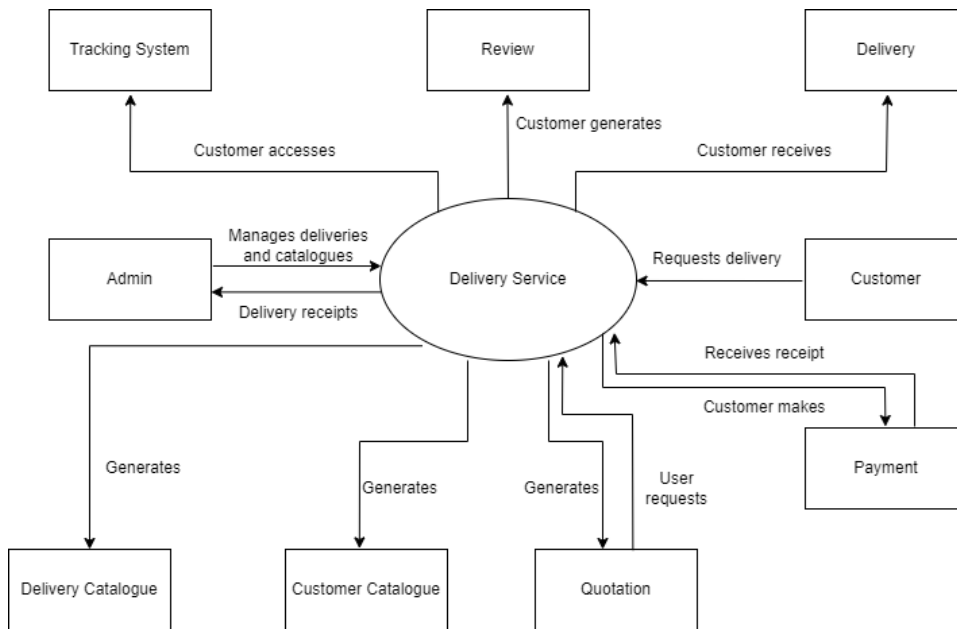
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MILESTONES

Coding through Analysis and Design

CLASS DIAGRAM

CONTEXT DIAGRAM



Main functionalities



Use Case Success Scenarios

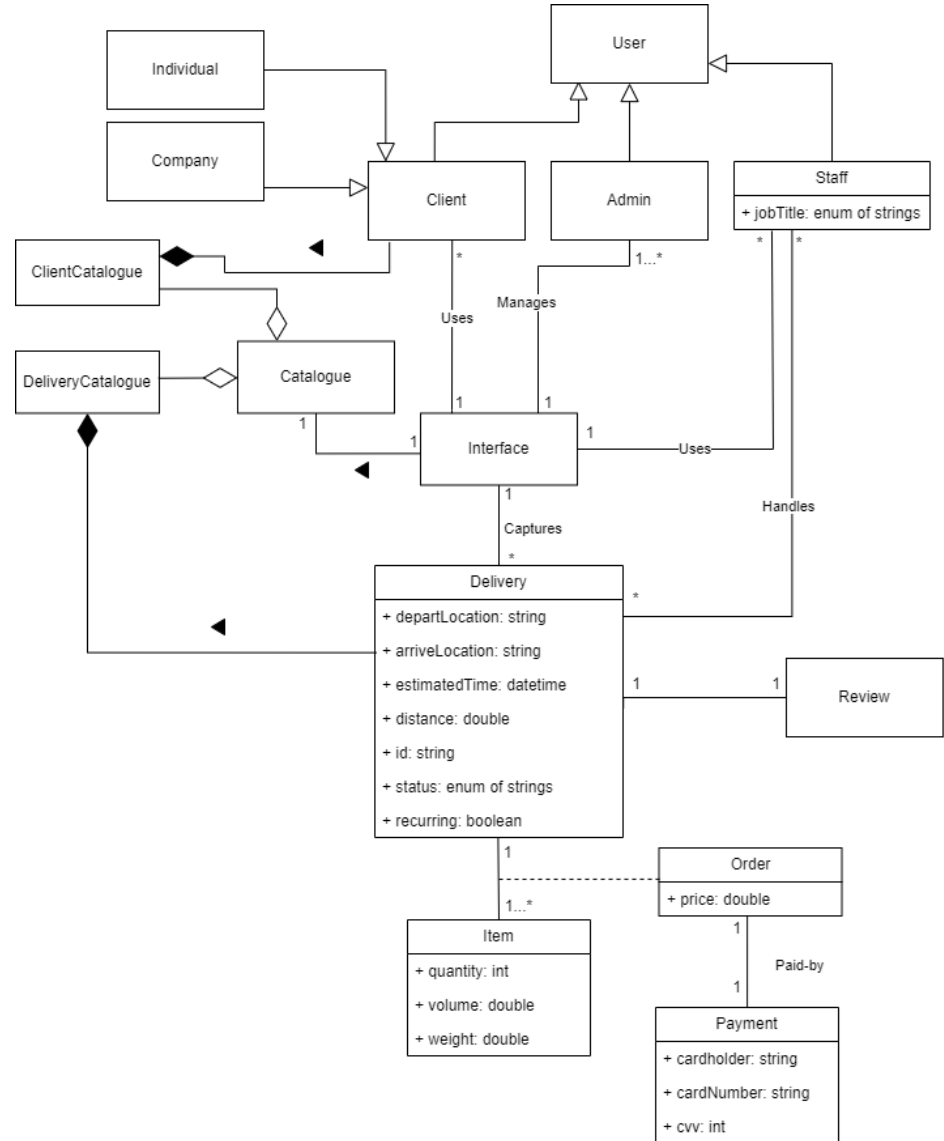
- Request Delivery
 - A client navigates to “request delivery or quotation” page, inputs all the required fields, then an order summary pops up and the user can proceed to payment.
 - A client navigates to the “my deliveries” page, clicks on a saved quotation and proceeds to payment.
- Request Quotation
 - A client navigates to “request delivery or quotation” page, inputs all the required fields, then an order summary pops up and the user can save quotation.
- Track the Delivery
 - A client navigates to “my deliveries” and can see the tracking status of their deliveries.

Use Case Success Scenarios

- **Make Payment**
 - A client clicks “Proceed to Payment” from either the “request delivery or quotation” page or the “my deliveries” page and then proceeds to fill out their credit card information to complete the transaction.
- **Review Service**
 - A client goes to “my deliveries” and can write a review on a delivery that is completed. The review appears under their delivery and in the review section of the website.
- **Request Customer Support**
 - A client can receive customer support by asking questions in a chat room.

Domain Diagram vs Actual Architecture

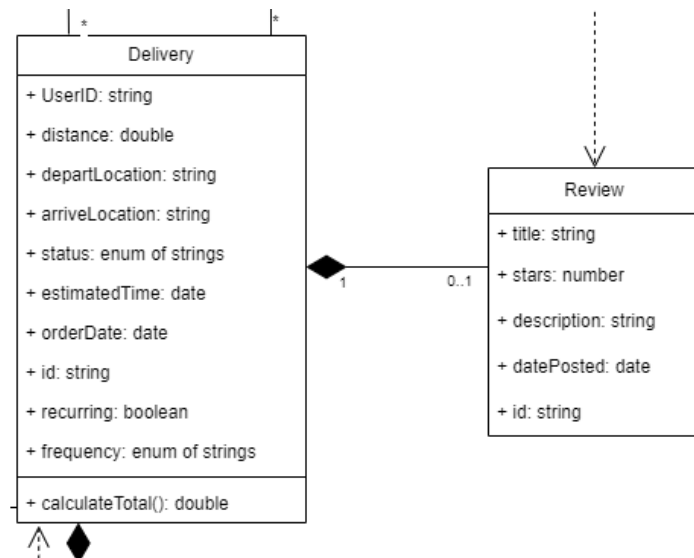
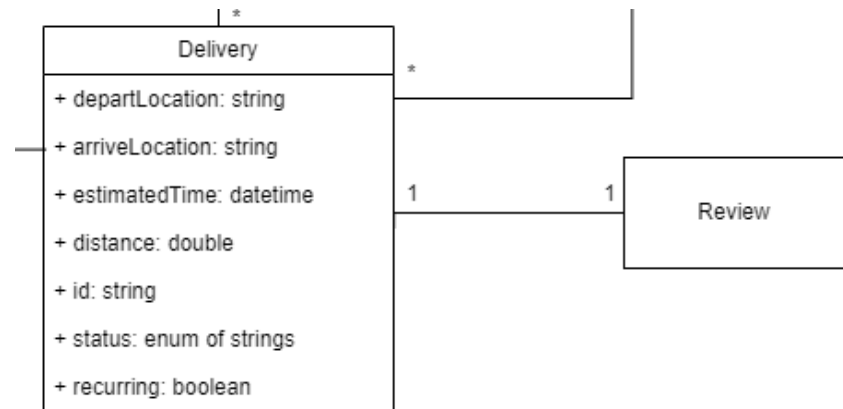
- **Domain Diagram:**
Illustrate concepts and interactions
- **Actual Architecture:**
Illustrates the structure of the code

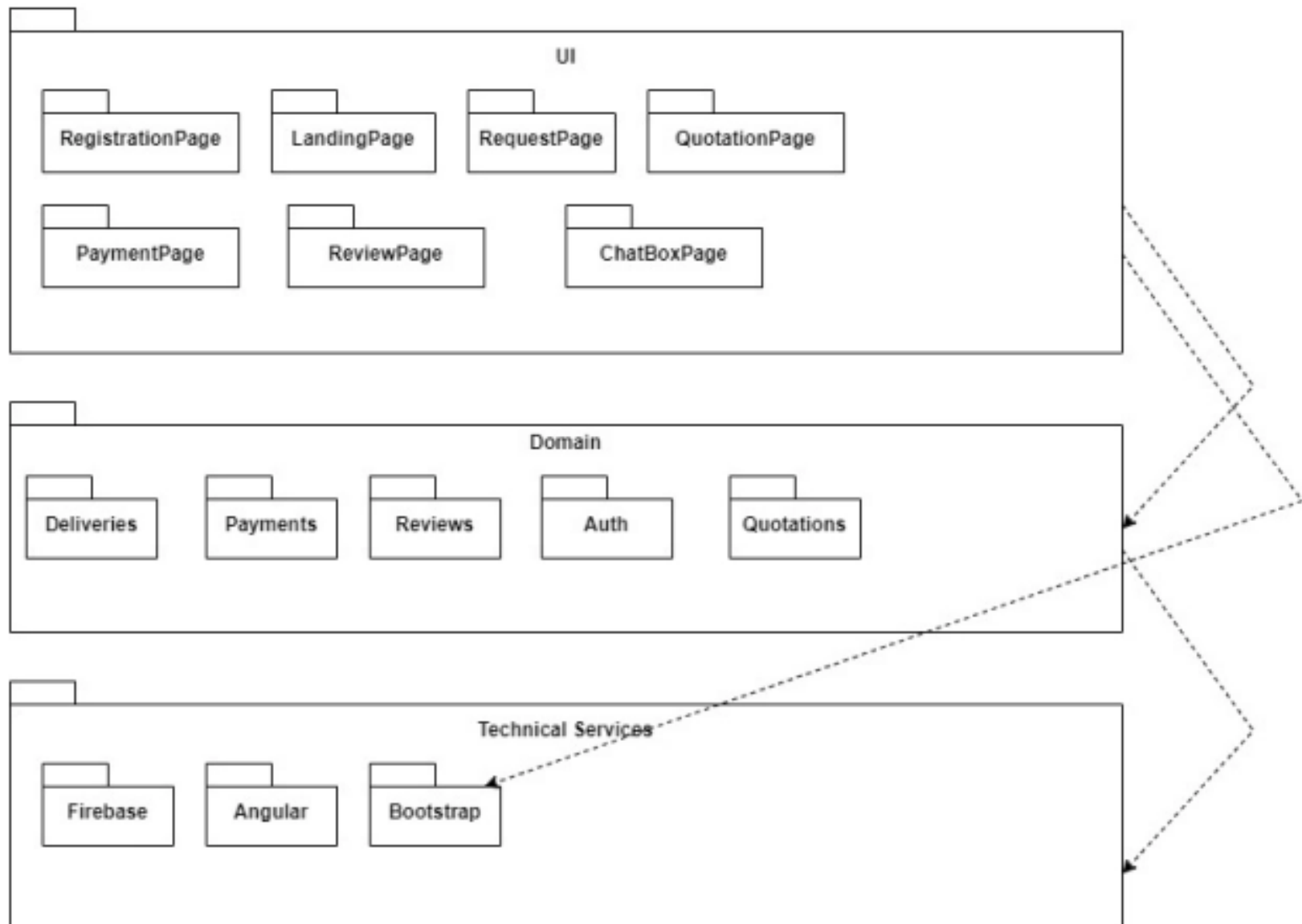


Domain Diagram vs Class Diagram

Domain Diagram contains all the domain concepts and how they are associated.

Class diagram provides more details on the attributes and methods that belong to each domain concept. Methods are taken from the sequence diagrams.





Refactorings and Why

- Refactoring methods:
 - higher cohesion
 - lower coupling
 - use of controller
 - test passing
 - comprehensive comments

Lower coupling

takes delivery attributes (coupling)

```
Nicholas Piperni, yesterday | 2 authors (Nicholas Piperni)  
export interface Review {  
  stars: number;  
  title: string;  
  description: string;  
  date: string;  
  fromLocation: string;  
  toLocation: string;  
  username: string;  
  itemNames: string[];  
  id: string;  
}
```

```
private setReviewUserAndDeliveryData(review: Review, user: any): Review {  
  review.username = user?.FirstName + ' ' + user?.LastName;  
  review.id = this.delivery.Id;  
  (parameter) review: Review toString();  
  review.fromLocation = this.delivery.DepartLocation;  
  review.toLocation = this.delivery.ArriveLocation;  
  review.itemNames = this.delivery.items.map((item) => item.Name);  
  return review;  
}
```

Higher cohesion

Function relevance, Module function use

```
// Function to calculate the total delivery price
public calculateTotalDeliveryPrice(delivery: Delivery): Observable<Delivery> {
  return new Observable<Delivery>((observer) => {
    this.distanceCalculationService
      .calculateDistance(delivery.DepartLocation, delivery.ArriveLocation)
      .subscribe((distance) => {
        let partialTotal: number = 0;

        // Calculate item price for each item in the delivery
        for (let item of delivery.items) {
          // This changes the item price in the delivery object
          item.itemPrice = this.calculateItemPrice(item);
          partialTotal += item.itemPrice;
        }

        // Calculate the total delivery price
        var total = partialTotal + Math.floor(2 * (distance / 50));
        delivery.Total = total;
        delivery.Distance = distance;
        let estimatedTime = this.calculateEstimatedDeliveryTime(distance);
        let today = new Date();
        let futureDate = new Date(
          today.setDate(today.getDate() + estimatedTime)
        ); // Add estimatedTime days to today's date
        delivery.OrderDate = today.toISOString();
        delivery.EstimatedTime = futureDate.toISOString();
        console.log(delivery);
        observer.next(delivery);
        observer.complete();
      });
  });
}
```

```
export class CalculateTotalDeliveryService {
  constructor(private distanceCalculationService: DistanceCalculationService) {}

  // Function to calculate the total delivery price
  public calculateTotalDeliveryPrice(delivery: Delivery): Observable<Delivery> { ...
  }

  // Function to calculate the item price
  private calculateItemPrice(item: Item): number { ...
  }

  private calculateEstimatedDeliveryTime(distance: number): number { ...
  }
}

Guillaume-Lachapelle, yesterday | 1 author (Guillaume-Lachapelle)
@Injectable({
  providedIn: 'root',
})
export class DistanceCalculationService {
  constructor(private http: HttpClient) {}

  // Returns distance in km
  public calculateDistance(...
  ) {
  }

  private getCoordinates(address: string) { ...
  }

  private getDistanceFromLatLonInKm(...
  ) {
  }

  private deg2rad(deg: number) {
    return deg * (Math.PI / 180);
  }
}
```

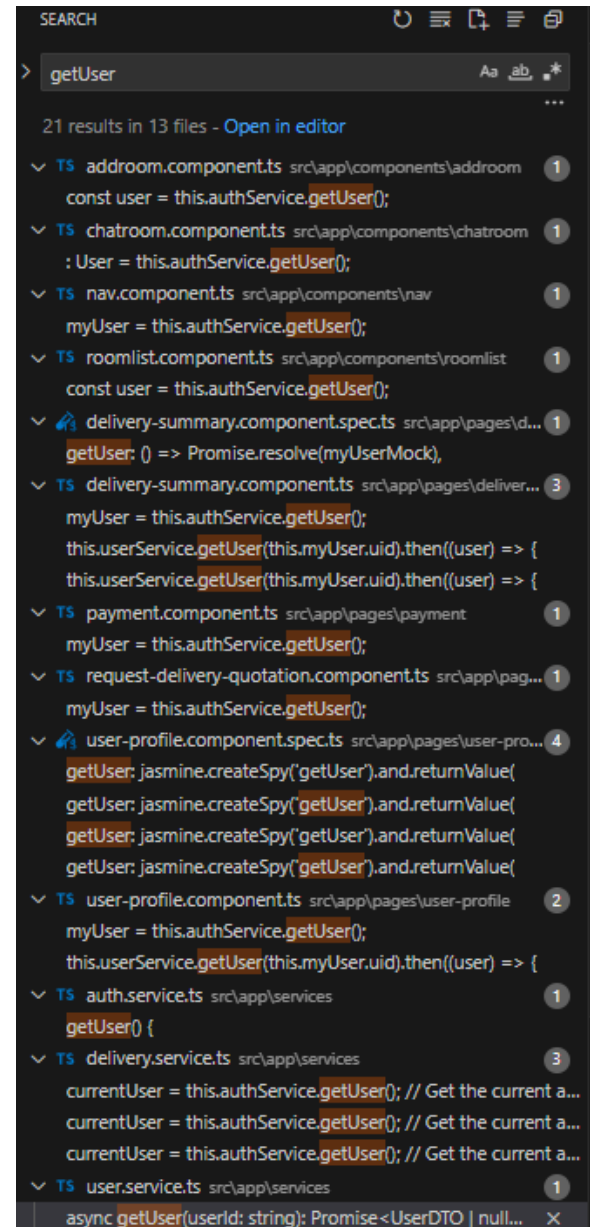
Guillaume-Lachapelle, 2 days ago • Created serv

Controller: Services

Events handling

```
})  
export class ChatroomService {  
  // BehaviorSubject to store and observe page number information  
  private pageNumberSource = new BehaviorSubject({} as PageInfo);  
  pageNumber$ = this.pageNumberSource.asObservable();  
  
  // Constructor of the service  
  constructor() {}  
  
  /**  
   * Set the page number to be observed by subscribers.  
   * @param value - The PageInfo object representing page information.  
   */  
  setPageNumber(value: PageInfo) {  
    this.pageNumberSource.next(value);  
  }  
}
```

Repeated functions



Test

66 specs, 1 failure, randomized with seed 65391

finished in 1.234s

Spec List | Failures

PaymentConfirmationDialogComponent > should create

TypeError: Cannot read properties of undefined (reading 'Id')

```
at templateFn (ng:///PaymentConfirmationDialogComponent.js:33:80)
at executeTemplate (http://localhost:9876/_karma_webpack_/webpack:/node_modules/@angular/core/fesm2022/core.mjs:11986:13)
at refreshView (http://localhost:9876/_karma_webpack_/webpack:/node_modules/@angular/core/fesm2022/core.mjs:13481:13)
at detectChangesInView (http://localhost:9876/_karma_webpack_/webpack:/node_modules/@angular/core/fesm2022/core.mjs:13646:9)
at detectChangesInComponent (http://localhost:9876/_karma_webpack_/webpack:/node_modules/@angular/core/fesm2022/core.mjs:13621:5)
at detectChangesInChildComponents (http://localhost:9876/_karma_webpack_/webpack:/node_modules/@angular/core/fesm2022/core.mjs:13659:9)
at refreshView (http://localhost:9876/_karma_webpack_/webpack:/node_modules/@angular/core/fesm2022/core.mjs:13531:13)
at detectChangesInternal (http://localhost:9876/_karma_webpack_/webpack:/node_modules/@angular/core/fesm2022/core.mjs:13420:9)
at RootViewRef.detectChanges (http://localhost:9876/_karma_webpack_/webpack:/node_modules/@angular/core/fesm2022/core.mjs:13937:9)
at ComponentFixture._tick (http://localhost:9876/_karma_webpack_/webpack:/node_modules/@angular/core/fesm2022/testing.mjs:127:32)
```

src > app > components > payment-confirmation-dialog > payment-confirmation-dialog.component.html > div.card > div.card-body.mx-4

```
1 <div class="card">
2   <div class="card-body mx-4">
3-  <div class="container">
4    <br /><br />
5    <div class="header">
6      Order Confirmation
7    </div>
8    <hr>
9    <div class="body">
10     <p>Order successfully placed!</p>
11     <p>Check out your order with id: {{ delivery.Id }} </p>
12     <p>Rerouting you to "My Deliveries"</p>
13   </div>
14   <div class="modal-footer">
15     <button type="button" class="btn btn-outline-dark" (click)="close()">
16       Close
17     </button>
18   </div>
19 </div>
20 </div>
21 </div>
22
```

```
1 <div class="card">
2   <div class="card-body mx-4">
3+  <div *ngIf="delivery" class="container"> You, 17 seconds ago • Uncommitted changes
4    <br /><br />
5    <div class="header">
6      Order Confirmation
7    </div>
8    <hr>
9    <div class="body">
10     <p>Order successfully placed!</p>
11     <p>Check out your order with id: {{ delivery.Id }} </p>
12     <p>Rerouting you to "My Deliveries"</p>
13   </div>
14   <div class="modal-footer">
15     <button type="button" class="btn btn-outline-dark" (click)="close()">
16       Close
17     </button>
18   </div>
19 </div>
20 </div>
21 </div>
22
```

Comprehensive comments

clear comments depending on complexity


```
/**
 * Retrieve information about a person based on the user type.
 * @param db - The Firebase Database instance.
 * @param user - The User object representing the current user.
 * @return A Promise resolving to a UserDTO object with information about the person on the page.
 */
async getPersonOnPage(db: Database, user: User): Promise<UserDTO> {
  let personOnPage = {} as UserDTO;

  // Check user type and query the corresponding database node
  if (user) {
    if (user.photoURL == 'Individual') {
      const userRef = query(ref(db, 'individual/' + user.uid));
      const snapshot = await get(userRef);
      if (snapshot.exists()) {
        personOnPage = snapshot.val();
      }
    } else if (user.photoURL == 'Company') {
      const userRef = query(ref(db, 'company/' + user.uid));
      const snapshot = await get(userRef);
      if (snapshot.exists()) {
        personOnPage = snapshot.val();
      }
    } else if (user.photoURL == 'Staff') {
      const userRef = query(ref(db, 'staff/' + user.uid));
      const snapshot = await get(userRef);
      if (snapshot.exists()) {
        personOnPage = snapshot.val();
      }
    }
  }
}
```


Demo

- 6 Core features
 - Request for delivery (details of pick up and drop off)
 - Proposal of a quotation for the service
 - Communication about the service
 - Tracking the order
 - Payment
 - Review of service

Request Delivery

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Delivery Details

Enter departure location information:

Depart Address*

Depart City*

Depart Province*

Depart Postal Code*

Enter destination information:

Destination Address*

Destination City*

Destination Province*

Destination Postal Code*

I would like to have my delivery placed:

☒ Once ☐ Weekly ☐ Bi-Weekly ☐ Monthly

Add Item to Delivery

Finish

Customer service

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Proposal of quotation

Order Summary

Depart Location: 3735, de Louviers, Brossard, Québec, J4Y 3J4
Destination: 3735, de Louviers, Brossard, Québec, J4Y 3J4

| | |
|---------------|---------|
| test (Qty: 2) | \$45.82 |
|---------------|---------|

Total: \$45.82

Proceed to PaymentSave Quotation

Quotation Summary

Quotation ID: **202mpi2qbi9**
🔄 RECURRING: weekly

Quotation Items

| | |
|-------------------|----------------|
| Item Name: Laptop | Price: \$64.92 |
| Quantity: 2 | |

[+ Place Order](#)

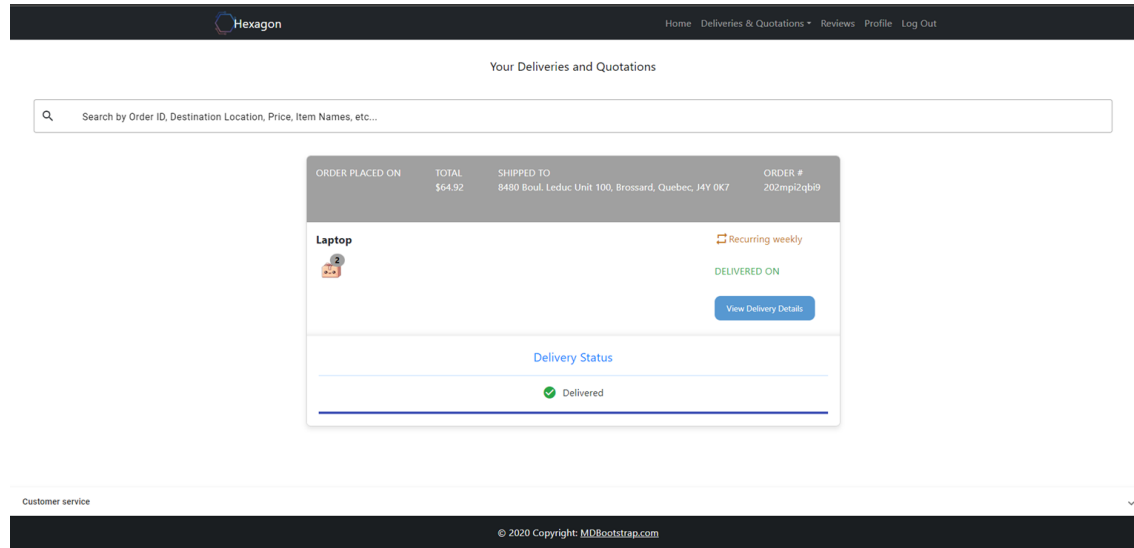
Quotation Information

Depart Location: 3000 rue Louis A. Amos, Montreal, Quebec, H8T 3P8
Arrival Location: 8480 Boul. Leduc Unit 100, Brossard, Quebec, J4Y 0K7
Distance: 0 km
Recurring: weekly
Total: \$64.92

Status

☒ Quotation

Tracking the order



Delivery Summary

Delivery ID: **202mpi2qbi9**

 **RECURRING:** weekly

Delivery Items

Item Name: Laptop

Price: \$64.92

Quantity: 2

[+ Add Review](#)

Delivery Information

Depart Location: 3000 rue Louis A. Amos,
Montreal, Quebec, H8T 3P8

Arrival Location: 8480 Boul. Leduc Unit 100,
Brossard, Quebec, J4Y 0K7

Distance: 0 km

Delivered on:


Recurring: weekly

Total: \$64.92

Delivery Status

 **Delivered**


Tracking status (staff)

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Delivery Summary

Delivery ID: **16c9qb76x9q**

 RECURRING:

Delivery Items

Item Name: Books

Price: \$229.1

Quantity: 10

Delivery Information

Depart Location: 555 Montrose Dr.,
Beaconsfield, Quebec, H9W 6B4


Arrival Location: 145 Meany , Kirkland,
Quebec, H9J 3B9

Distance: 0 km

Estimated Time of Delivery:

Total: \$229.1

Delivery Status

 Pending

Change Tracking Status

Customer service

Change Delivery Status

Choose a status
Pending ▼

Submit

Cancel

Payment

Order Summary

Depart Location: 3735, de Louviers, Brossard, Québec, J4Y 3J4

Destination: 3735, de Louviers, Brossard, Québec, J4Y 3J4

| | |
|---------------|---------|
| test (Qty: 2) | \$45.82 |
|---------------|---------|

Total: \$45.82

Proceed to Payment

Save Quotation

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Accepted Payment Methods

Visa

Mastercard

American Express

Card Details

Card Number*

MM/YY*

CVV*

Name on Card*

Billing Address

First Name*

Last Name*

Street Address*

Apt/Suite/Etc

Order Summary

Subtotal: 45.825

Taxes: 6.865


Order Total: 52.685

Place Order

Customer service


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Review

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Delivery Summary

Delivery ID: 202mpi2qbi9

 RECURRING: weekly

Delivery Items


| | |
|-------------------|----------------|
| Item Name: Laptop | Price: \$64.92 |
| Quantity: 2 | |

[+ Add Review](#)

Delivery Information

Depart Location: 3000 rue Louis A. Amos, Montreal, Quebec, H8T 3P8
Arrival Location: 8480 Boul. Leduc Unit 100, Brossard, Quebec, J4Y 0K7
Distance: 0 km
Delivered on:
Recurring: weekly
Total: \$64.92

Delivery Status

 Delivered

Customer service

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Review Dialog

Stars: ★★★★★

Title:*



Description:*



Submit

Cancel

Review (cont'd)

Delivery Items

Item Name: Laptop

Price: \$64.92

Quantity: 2

Review



Very good delivery!



Guillaume Lachapelle

Item(s): Laptop

Departed from: 3000 rue Louis A. Amos, Montreal, Quebec, H8T 3P8

Arrived at: 8480 Boul. Leduc Unit 100, Brossard, Quebec, J4Y 0K7

I received my package one day before the expected date! Impressive customer service! 5 stars well deserved!

Posted on: November 30, 2023

Delivery Information

Depart Location: 3000 rue Louis A. Amos, Montreal, Quebec, H8T 3P8

Arrival Location: 8480 Boul. Leduc Unit 100, Brossard, Quebec, J4Y 0K7

Distance: 0 km

Delivered on:

Recurring: weekly

Total: \$64.92

Delivery Status



Delivered

Review page

See what our clients have to say

My Title



John Doe

Item(s): Item 1,Item 2

Departed from: Toronto

Arrived at: Montreal

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum.

Posted on: November 27, 2023

Very good delivery!



Guillaume Lachapelle

Item(s): Laptop


Departed from: 3000 rue Louis A. Amos, Montreal, Quebec, H8T 3P8

Arrived at: 8480 Boul. Leduc Unit 100, Brossard, Quebec, J4Y 0K7

I received my package one day before the expected date! Impressive customer service! 5 stars well deserved!

Posted on: November 30, 2023


Communication about service

Hexagon

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Hexagon - Your Ultimate Delivery Solution

Where deliveries are convenient and efficient. We are here to make your life easier by delivering what you need when you need it.



Customer service

Guillaume

Your issues

+ Create issues

Customer Service Chats

Nasa help

Customer service

11/30/23, 3:56 PM Guillaume joined the room

Me at 11/30/23, 3:57 PM

Hello! I am NASA and I need help :)

11/30/23, 3:57 PM Guillaume left the room

11/30/23, 10:32 PM Guillaume joined the room

Enter message here


Communication (staff)


Customer service


Guillaume

Room List

Customer Service Chats

Guillaume test 

Charged twice 

Account Inquiry 

Help me 

yoyo 


toto 

my room 

hey 

hello 

room2 

company room 

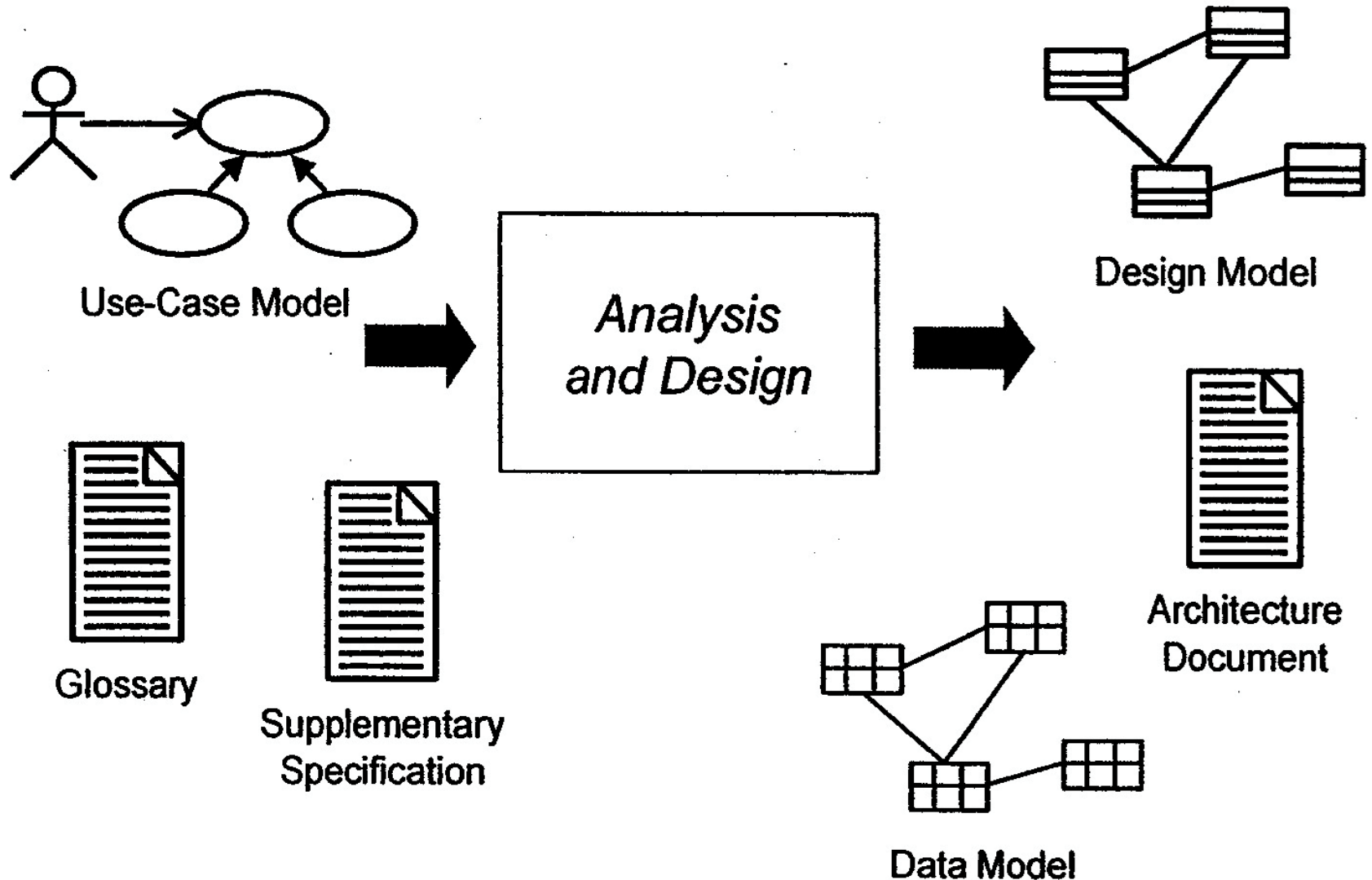
Nasa help 

Conclusion

- What did we learn??



Analysis and Design



Lifecycle of Project



Thank you

