TEST OVERVIEW

The programming languages used in this test must include .NET Core, C#, and Angular (not AngularJS). In conjunction with these, you may use any other languages, tools, or libraries you want.

Above and beyond the basic requirements that will be outlined in the next section, extra points will be given for:

- Overall Quality (including code clarity)

- Maintainability

- Interactivity

- UI

- Ease of use

- Security

- Creativity

- The use of Github / Gitlab / Bitbucket or any other version control system of your choosing ○

  Kindly provide the url of your repository if you take this approach

Should you require additional information or clarifications do not hesitate to contact us.

REQUIREMENTS

A logistics company called Cargo4You specialises in shipping small to large packages across the world.

Aside from their own rates, they have partnered with 2 other couriers to get the best rates possible.

Each courier has its own validation rules and price brackets as per table below:

Courier	Validations	Calculations
Cargo4You	• Any parcel <= 20Kg • Any parcel <= 2000cm^3	Based on dimensions: • Any parcel <= 1000cm^3 costs €10 • Any parcel > 1000cm^3 and <= 2000cm^3 costs €20 Based on weight: • Any parcel <= 2Kg costs €15 • Any parcel > 2Kg and <= 15Kg costs €18 • Any parcel > 15Kg and <= 20Kg costs €35
ShipFaster	• 10Kg < Any parcel <= 30Kg • Any parcel <= 1700cm^3	Based on dimensions: • Any parcel <= 1000cm^3 costs €11.99 • Any parcel > 1000cm^3 and <= 1700cm^3 costs €21.99 Based on weight: • Any parcel > 10Kg and <= 15Kg costs €16.50 • Any parcel > 15Kg and <= 25Kg costs €36.50 • Any parcel > 25Kg costs €40 plus €0.417 for every Kg over 25Kg

MaltaShip	• Any parcel >= 10Kg • Any parcel >= 500cm³	Based on dimensions: • Any parcel <= 1000cm³ costs €9.50 • Any parcel > 1000cm³ and <= 2000cm³ costs €19.50 • Any parcel > 2000cm³ and <= 5000cm³ costs €48.50 • Any parcel > 5000cm³ costs €147.50 Based on weight: • Any parcel > 10Kg and <= 20Kg costs €16.99

		• Any parcel > 20Kg and <= 30Kg costs €33.99 • Any parcel > 30Kg costs €43.99 plus €0.41 for every Kg over 25Kg

They would like to offer an online tool to their customers to check the price of parcels before making orders. The price depends on the dimensions and weight of the package. They would also like to capture the customers' input for future analysis. Additionally, Cargo4You plans to expand its partner list in the future to enable better pricing for its customers – therefore the solution's architecture must allow for such scalability.

Design and develop a web application that has the following minimum features:

1. A customer can input the dimensions of the package (width, height, depth) as well as the weight.

2. The price for shipping the package is calculated based on dimensions and weight. Calculations are based on the logic described in the table above.

3. The final price for the package is the most expensive calculation based on dimensions and weight. For example, if based on dimensions the price is €20, and based on weight the price is €35, the final price is €35.

4. The details of the package are captured by the web application so it can be analysed later.

5. The package price is displayed to the user. The user is then encouraged to make the order.

BONUS REQUIREMENTS

The following requirements are not mandatory but would be a nice to have. If any of the following tasks are not tackled, it will not affect your overall valuation.

1. Identification and suggestion of fixes for any requirement shortcomings

2. Implement Unit Tests or integrate your system with Specflow 4. The use of containers to host the system