

# Coding Test

## Tallylt Code test.

This test is combined with a technical interview where we will sit down and discuss the code you have produced and how it can be improved. The aim is to meet the technical team and for us and you to feel comfortable working together. Generally, we expect you to spend **around 2-4 hours** on this test. You DON'T HAVE TO DO EVERYTHING – if for example you're a great front-end developer – then maybe concentrate on that side and just mock out the backend, if on the other hand you're a hard-core C# backend developer then just do a console app. If you have time to do both – then go for it. While you don't need to complete every component – the components that are written should be 'production' quality – eg documented, tested etc.

## The problem

We need a web site that does a rate calculation engine for a carpark

The inputs for this engine are:

1. Car Entry Date and Time
2. Car Exit Date and Time

Based on these 2 inputs the engine program should calculate the correct rate for the customer and display the name of the rate along with the total price to the customer using the following rates:

Name of the Rate	Early Bird
Type	Flat Rate
Total Price	\$13.00
Entry condition:	Enter between 6:00 AM to 9:00 AM
Exit condition	Exit between 3:30 PM to 11:30 PM

Name of the Rate	Night Rate
Type	Flat Rate
Total Price	\$6.50
Entry condition:	Enter between 6:00 PM to midnight (weekdays)
Exit condition	Exit before 6 AM the following day

Name of the Rate	Weekend Rate
Type	Flat Rate
Total Price	\$10.00
Entry condition:	Enter anytime past midnight on Friday to Sunday
Exit condition	Exit any time before midnight of Sunday

**Note:**

If a customer enters the carpark before midnight on Friday and if they qualify for Night rate on a Saturday morning, then the program should charge the night rate instead of weekend rate.

For any other entry and exit times the program should refer the following table for calculating the total price.

Name of the Rate	Standard Rate
Type	Hourly Rate
0-1 Hours	\$5.00
1-2 Hours	\$10.00
2-3 Hours	\$15.00
3+ Hours	\$20.00 flat rate <b>for each calendar day</b> of parking

**Our ideal stack**

Our normal solution for this would be

- 1) React front end web application
- 2) Web service in ASP.Net core

Again – you don't have to use this stack – eg you don't need to use React, use what you are most comfortable with

This test gives you the opportunity to demonstrate your flair for technology and your programming style.

The result does not have to be complete but should show your ability to structure and test quality code.

# Submission

Two ways to submit the test

- Public GitHub repo (preferred).
- Zip up solution files (no binaries please) and send by email.

All the best

The team at TallyIT

If you have any questions, then please contact us on the email this test came with.