

TECHNICAL TEST

Description of the technical test,
rules, key dates and submission
details





INTRODUCTION

Welcome to the Blue Prism technical test

The challenge has 3 easy steps:

- Think of a solution to the problem I'm about to show you
- Code your solution
- Send it in to us

We will then get a senior dev to review your solution and give you feedback and hopefully a final stage interview.



THE CHALLENGE

Write a program to solve a word puzzle often known as a 'Word-Ladder'.

Here's how it works

- Choose a four-letter start word i.e. same
- Choose a four-letter end word i.e. cost

Compute a list of words which move from the start word to the end word in the shortest number of steps.

In any one step:

- Only one letter can change between any two words
- Every other letter must stay in the same place
- Each intermediate step must be a word from the supplied dictionary file



blueprism[®]

HACKATHON RULES

Write in C# .Net (Core or Framework)

Create a command line application

The solution should take these 4 command line arguments:

- Start Word
- End Word
- Dictionary file (supplied)
- Answer file name

The Start and End word should be 4 characters long

The solution should write the final list of words into a text file

Include a single page write up (README.md):

- Document how you tackled the problem
- References to any articles/methodologies you used.

Maximum of one submission per attendee

You must submit the test by the date agreed with the interviewer





WHAT WE ARE LOOKING FOR

The challenge is just as much about how you organize the code as it is creating an innovative algorithm to solve the puzzle.

Entries should consider demonstrating:

- SOLID Principles
- Design For Testability, Scalability, Readability
- Adherence to some form of coding standards
- Unit Testing (NUnit, Xunit, Moq etc.)
- Modern development techniques i.e. TDD



blueprism[®]

BONUS MARKS

Bonus marks will be given to solutions that can demonstrate:

- Performance Considerations
- Design Patterns
- Reusability
- Modern C# features (7.x, 8, 9)
- Use of NuGet
- Use of Source Control (i.e. Github, Bitbucket, Azure)
- AI/ML techniques



- Any questions, drop us an email.

