

## Backend Role Technical Exercise

### Implement a Customer Preference Centre

**Please complete the exercise in either C#, F# or JavaScript/TypeScript.**

Customers are able to set their preferences for receiving marketing information. The following options are available:

- On a specified date of the month [1-28]
- On each specified day of the week [MON-SUN] (collection)
- Every day
- Never

Implement a system that accepts the choices of multiple customers as input. After receiving the input the system should produce a report of the upcoming 90 days. For each day that marketing material will be sent, the report should show which customers will be a recipient.

For example, Customer A chooses 'Every day'. Customer B chooses 'On the 10th of the month'. Customer C chooses 'On Tuesday and Friday'. After providing this input the abridged output beginning in April would be:

Sun 01-April-2018	A
Mon 02-April-2018	A
Tue 03-April-2018	A, C
Wed 04-April-2018	A
Thu 05-April-2018	A
Fri 06-April-2018	A, C
Sat 07-April-2018	A
Sun 08-April-2018	A
Mon 09-April-2018	A
Tue 10-April-2018	A, B, C
Wed 11-April-2018	A
Thu 12-April-2018	A
Fri 13-April-2018	A, C
Sat 14-April-2018	A
...	

The input/output format is yours to decide. You should aim to design a 'turn-key' solution but appropriate documentation is also welcome. Please use a technology you are comfortable in as you will be asked to extend your solution as part of a pair-programming exercise.