

To prepare for this homework session, see if you can answer the following questions. The answers will be provided during the presentation.

1. What would be the screen output from this code?

```
DECLARE grid AS ARRAY OF ARRAY OF INTEGER INITIALLY []
DECLARE column AS INTEGER INITIALLY 8
DECLARE row AS INTEGER INITIALLY 10
FOR column FROM 0 TO 8 DO
    FOR row FROM 0 TO 10 DO
        SET grid [column, row] TO column * row
        SEND grid [3,row] TO DISPLAY
    END FOR
END FOR
```

2. A file holds the timetable for a bus route.

The first line of the file contains names of all the bus stops on the route, in order, separated by commas. Each subsequent line of the file contains stopping times for a particular service.

If a service does not stop at a particular stop, then "--:--" is used as a place holder for the stopping time.

Part of the file is shown below:

Park Place	Union Street	Clyde Bowling Green	West College
10:00	10:05	10:16	10:21
10:15	--:--	10:31	10:36
..... and so on

This shows details of two services on a bus route that has four stops. Notice that the second service doesn't stop at Union Street.

The file is to be read into a program to enable customers to find the time of the next bus at their stop.

Define one or more data structures to hold the bus timetable information, explaining how the various parts of the timetable would be stored in the data structure.

3. We will be looking at one or two past paper questions so you might like to read them in advance :

2017 Q1b, Q1e and Q4b, and 2016 Q2d and Q3d