

INSTRUCTIONS FOR TOPIC 5 ACTIVITY

5% of your semester grade

Time required: 2 hours

Suggestion: Print this document out before trying the activity

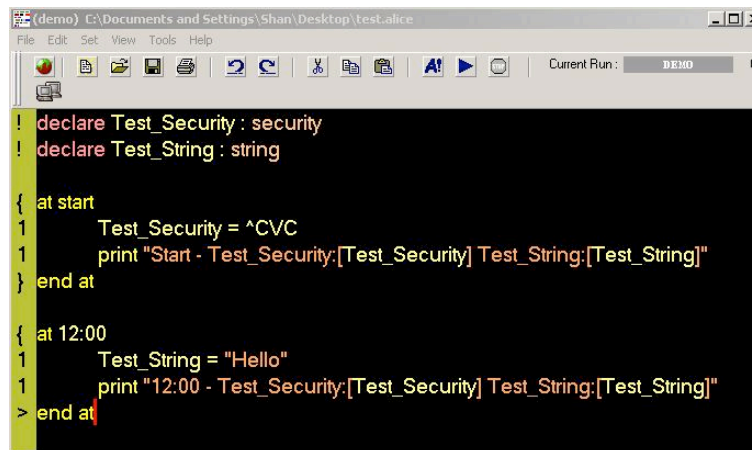
PREPARATION

1. Create a new Microsoft Word document.
2. Save your empty document to your desktop with the filename MyFullName_T5.doc. Leave the file open while doing the activities below.

NB The following three activities require you to make screen shots of your work, and then paste these screen shots into the word document which you created above. Screenshots from the remote computer can be done by holding down ALT and then clicking the PrintScreen key on the keyboard. To quickly paste the screenshot into the word document on your local computer, just right click in the document and select paste.

ACTIVITY 1 (1 mark)

1. Type the following program into ALDIT, and then modify the code within the at start block, so that it prints out *Hello*, rather than ???.
2. Take a screenshot of your completed program source code (not the output) and paste it into *Page One* of the word document you created above.



```
! declare Test_Security : security
! declare Test_String : string

{ at start
1   Test_Security = ^CVC
1   print "Start - Test_Security:[Test_Security] Test_String:[Test_String]"
} end at

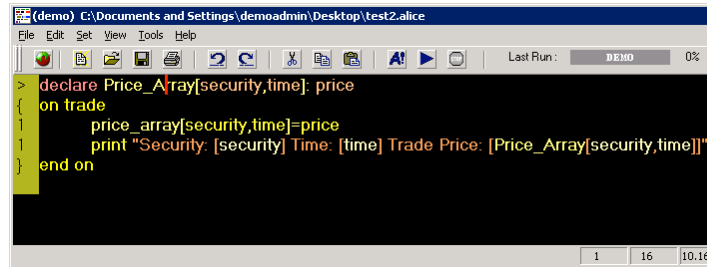
{ at 12:00
1   Test_String = "Hello"
1   print "12:00 - Test_Security:[Test_Security] Test_String:[Test_String]"
> end at
```

Figure One (based on slide 20 from the lecture)

ACTIVITY 2 (2 marks)

1. Referring to Slide 26 from the lecture, modify the code to create a two dimension volume array indexed by security and time
2. Every time a trade occurs, assign the volume of the trade to the array created above.
3. If the volume is greater than 1000, then print the name of the security, the time, and the contents of the array (at that index point).
4. Take a screenshot of your completed program source code (not the output) and paste it into *Page Two* of the word document you created above.

MARKET DATA ANALYSIS USING ALICE



```
(demo) C:\Documents and Settings\demoadmin\Desktop\test2.alice
File Edit Set View Tools Help
Last Run : DEMO 0%

> declare Price_Array[security,time]: price
{
  on trade
  {
    price_array[security,time]=price
    print "Security: [security] Time: [time] Trade Price: [Price_Array[security,time]]"
  }
}
end on
```

Figure Two (based on slide 26 from the lecture)

Marking guide for Activity 2

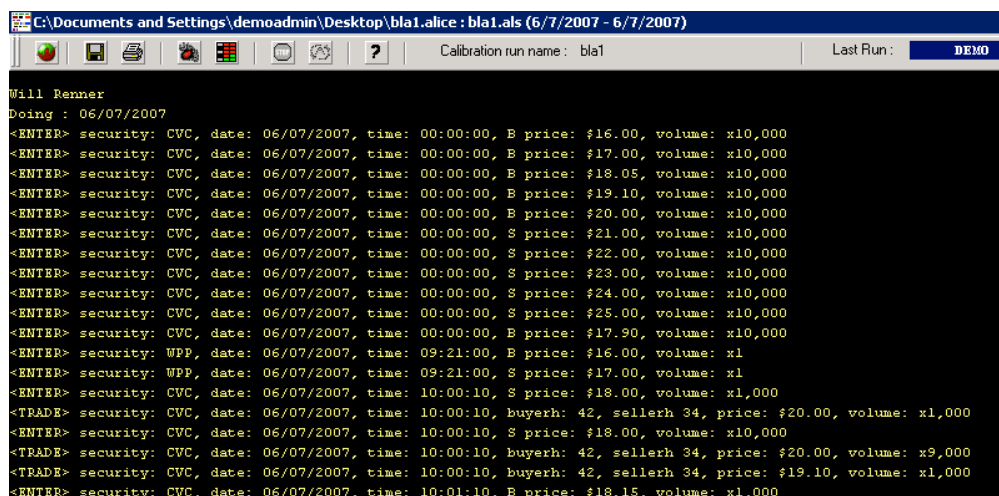
- 1 mark: Correct construction, use and printing of the array
- 1 mark: Correct use of an *if statement* to filter and output the results

ACTIVITY 3 (2 marks)

1. Referring to slides 29 and 30 from the lecture, write a program which produces the output shown in *Figure Three* (below)
2. Your program should not declare or use any variables.
3. Your program will make use of transaction attributes, such as:
 - transtype
 - security
 - date
 - time
 - buy_or_sell

You can look up the definitions of attributes in the *Alice Reference Manual*, or from within ALDIT by going to *Tools / Search Alice Function*.

4. When you are done, take a screenshot of your completed program source code and paste it into *Page Three* of the word document you created above. Then take a screen shot of the program output and paste this immediately under the source code.



```
C:\Documents and Settings\demoadmin\Desktop\bla1.alice : bla1.als (6/7/2007 - 6/7/2007)
Calibration run name : bla1 Last Run : DEMO

Will Renner
Doing : 06/07/2007
<ENTER> security: CVC, date: 06/07/2007, time: 00:00:00, B price: $16.00, volume: x10,000
<ENTER> security: CVC, date: 06/07/2007, time: 00:00:00, B price: $17.00, volume: x10,000
<ENTER> security: CVC, date: 06/07/2007, time: 00:00:00, B price: $18.05, volume: x10,000
<ENTER> security: CVC, date: 06/07/2007, time: 00:00:00, B price: $19.10, volume: x10,000
<ENTER> security: CVC, date: 06/07/2007, time: 00:00:00, B price: $20.00, volume: x10,000
<ENTER> security: CVC, date: 06/07/2007, time: 00:00:00, S price: $21.00, volume: x10,000
<ENTER> security: CVC, date: 06/07/2007, time: 00:00:00, S price: $22.00, volume: x10,000
<ENTER> security: CVC, date: 06/07/2007, time: 00:00:00, S price: $23.00, volume: x10,000
<ENTER> security: CVC, date: 06/07/2007, time: 00:00:00, S price: $24.00, volume: x10,000
<ENTER> security: CVC, date: 06/07/2007, time: 00:00:00, S price: $25.00, volume: x10,000
<ENTER> security: CVC, date: 06/07/2007, time: 00:00:00, B price: $17.90, volume: x10,000
<ENTER> security: WPP, date: 06/07/2007, time: 09:21:00, B price: $16.00, volume: x1
<ENTER> security: WPP, date: 06/07/2007, time: 09:21:00, S price: $17.00, volume: x1
<ENTER> security: CVC, date: 06/07/2007, time: 10:00:10, S price: $18.00, volume: x1,000
<TRADE> security: CVC, date: 06/07/2007, time: 10:00:10, buyerh: 42, sellerh: 34, price: $20.00, volume: x1,000
<ENTER> security: CVC, date: 06/07/2007, time: 10:00:10, S price: $18.00, volume: x10,000
<TRADE> security: CVC, date: 06/07/2007, time: 10:00:10, buyerh: 42, sellerh: 34, price: $20.00, volume: x9,000
<TRADE> security: CVC, date: 06/07/2007, time: 10:00:10, buyerh: 42, sellerh: 34, price: $19.10, volume: x1,000
<ENTER> security: CVC, date: 06/07/2007, time: 10:01:10, B price: $18.15, volume: x1,000
```

Figure Three: Program output

Marking guide for Activity 3

- 1 mark: A working program which produces similar output to that shown in *Figure Three*
- 1 extra mark: A working program which produces output *exactly the same* as that shown in *Figure Three*, although with your name displayed instead of *Will Renner*.

SUBMISSION

1. Check your Word document and make sure it contains four screen shots, one for each of the activities above, and an extra one for the last activity. The screen shot for Activity One should be on page one, The screen shot for Activity Two should be on page two, and the two screen shots for Activity Three should be on page three of the word document.
2. Make sure your word document is named in this way: MyFullName_T5.doc
3. Submit your document by uploading it on the assessment submission page for Topic 5.