

a) i) out sourcing refers to finding an outside source, from the company, to create the desired product. Each source may create a separate module for the end program

ii) Out sourcing may see that the program as a whole does not run properly as each module will not co-operate with others in the same way as if it were all made by the one person. It will also reduce the risk of somebody hooking into the system as one trick that worked on one module may not work on the others.

ii) To check the hardware on the network the company might choose to purchase a network package that they can install then remove the software later. Thus checking the hardware whilst they still have that software. To check that the software



works They could set up a simulated network that can be run to see that the separate modules interact correctly.

b) i) The symbol  $\rightarrow$  refers to data that may be a string of letters or numbers.

The symbol  $\rightarrow$  refers to a boolean type piece of data.

ii) line 9 while CardInSlot = false

Add line between 14 and 15

while CardInSlot = True

Add line between 21 and 22

END WHILE

Validated in line 21 = False



BEGIN Auto teller Management System

~~System\_on = True~~

Read System\_on

Validated = False

WHILE System\_on = True

Customer Number = 0

Stored Password = " "

Validated = False

Card in Slot = False

WHILE CardInSlot = False

Read CardSlot

IF Card is located in CardSlot THEN

CardInSlot = True

End IF

END WHILE

WHEN<sup>ILE</sup> ~~WHEN~~ CardInSlot = True

Accept Card Details ( . . . . . )

Accept and Validate Password ( . . . . . )

IF Validated = TRUE THEN

Accept Menu Choice ( . . . . . )

ENDIF

over page

END WHILE

READ system\_on

Validated = False

END WHILE

END

iii) BEGIN Accept And Validate Password

Attempt = 1

Read Stored Password

Read Password

Repeat

IF Password = Stored Password THEN

~~Accept~~ Validated = True

Else Validated = False

Print 'Re-entra Password'

End IF

~~IF~~ Attempt = Attempt + 1

UNTIL Attempt = 3

IF Attempt = 3 Then

Cease cond

End IF

END