Solution of prerelease material

//Solution of task 1

Begin

DECLARE TotalItem AS INTEGER //to input total number of items for sale

OUTPUT “Please enter the total number of items placed for auction”

INPUT TotalItems

WHILE ( TotalItems < 10 ) DO // to input total at least 10 items

OUTPUT “Their should be at least 10 items in the auction, enter again”

 INPUT TotalItems

ENDWHILE

DECLARE ItemNumber[1:TotalItems] AS INTEGER //To store all item numbers

DECLARE Description[1:TotalItems] AS STRING // To store description of all products

DECLARE ReservePrice[1:TotalItems] AS REAL // To store reserve price of all products

DECLARE NoOfBids[1:TotalItems] AS INTEGER //To store how many times bids are placed

DECLARE HighestBid[1:TotalItems] AS INTEGER // required for task 2

// Task 1 starts, this info will be entered by the sellers

FOR x= 1 TO TotalItems

INPUT ItemNumber[X]

INPUT Description[X]

INPUT ReservePrice[X]

NoOfBids[X] = 0

HighestBid[x] = 0

NEXT x

// Solution of task 2

DECLARE HighestBidder[1:TotalItems] AS INTEGER // required for task 2

DECLARE Answer AS CHAR

OUTPUT “Do you want to place a bid, if yes, enter “y” ”

INPUT Answer

WHILE Answer = ‘y’

 OUTPUT “Please enter the Item Number”

 INPUT ReqItem

 FOR x= 1 TO TotalItems

 IF ItemNumber[x] = ReqItem THEN

 OUTPUT Description[X]

 OUTPUT HighestBid[x]

 OUTPUT “Please place your bid”

 INPUT BuyersBid

 IF BuyersBid > HighestBid[x] THEN

 HighestBid[x] = BuyersBid

 NoOfBids[X] = NoOfBids[X] + 1

 OUTPUT “Please enter your Buyer Number”

INPUT HighestBidder[x]

 ELSE

 OUTPUT “The bid you have placed is lesser than the current highest bid”

 ENDIF

 ENDIF

 NEXT x

 OUTPUT “If you want to place another bid or there is another customer, enter “y” ”

INPUT Answer

ENDWHILE

//Solution of task 3

DECLARE Status[1:TotalItems] As STRING

DECLARE ItemSold AS INTEGER = 0 //to count the number of sold items

DECLARE UnSold AS INTEGER = 0 //to count the number of items did not meet reserve price

DECLARE NoBid AS INTEGER = 0 //to count the number of items with zero bid

DECLARE TotalAucFee AS INTEGER = 0 // to save auction company fee of each sold item

DECLARE AucCompFee AS INTEGER // to save auction company fee of each sold item

For x=1 to TotalItems

// For sold items, which have reached their reserve price

IF HighestBid[x] >= ReservePrice[X] THEN

 Status[x] = “Sold”

 AucCompFee = HighestBid[x]/10 //To calculate auction fee of each item

TotalAucFee = TotalAucFee + AucCompFee //Total fee for all sold items

 ItemSold = ItemSold + 1

OUTPUT “ Item No. ”, ItemNumber[x], “is sold for ” , HighestBid[x]

// For the number of items that did not meet the reserve price

ELSEIF HighestBid[x] < ReservePrice[X] AND NoOfBids[X] <> 0 THEN

OUTPUT “ Item No.”, ItemNumber[x] , “ is not sold, the final placed bid is ”, HighestBid[x]

UnSold = UnSold + 1

ELSE

// For the number of items with no bids, no need to apply any condition, it is obvious by the conditions above

 OUTPUT “Item No. ”, ItemNumber[x] , “is with no bid”

 NoBid = NoBid + 1

ENDIF

Next

// Display the total fee of auction company

OUTPUT “The total fee for auction company”, TotalAucFee

// To display the number of items sold, the number of items that did not meet the reserve price and the number of items with no bids.

OUTPUT “The number of items sold”, ItemSold

OUTPUT “The number of items that did not meet the reserve price”, UnSold

OUTPUT “The number of items with no bids”, NoBid