**CS 300 Hash Table Updated Pseudocode: Main Menu Logic**

If choice equals 1

 Start timer

 Call loadBids() with CSV path and hash table

 Output number of bids loaded

 Stop timer

 Output time in clock ticks and seconds

If choice equals 2

 Call PrintAll()

If choice equals 3

 Ask for bidId input

 Start timer

 Call Search(bidId)

 If bid is found

  Output bid info

 Else

  Output "Bid Id not found"

 Stop timer

 Output time

If choice equals 4

 Ask for bidId input

 Call Remove(bidId)

If choice equals 9

 Output "Good bye"

 Exit program

HashTable::Insert(bid)

Call hash() using bid.bidId → store in key

If nodes[key] is null

 Create new node with bid

 Assign to nodes[key]

Else if nodes[key] is empty (UINT\_MAX)

 Set bid and key in node

Else

 Set current = nodes[key]

 While current->next not null

  Move to next

 Create new node with bid

 Attach to end of list

HashTable::PrintAll()

For i from 0 to tableSize

 Set current = nodes[i]

 While current is not null

  Output bidId, title, amount, fund

  Move to current->next

End For

HashTable::Search(bidId)

Call hash(bidId) -> store in key

Set current = nodes[key]

While current is not null

 If current->bid.bidId equals bidId

  Return bid

 Move to next node

Return empty bid

HashTable::Remove(bidId)

Call hash(bidId) → store in key

Set current = nodes[key]

If current is null

 Return

If current->bid.bidId equals bidId

 If current->next is null

  Delete node

  Set to null

 Else

  Copy next node data into current

  Delete next node

 Return

Else

 While current->next is not null

  If current->next->bid.bidId equals bidId

   Set temp = current->next

   Set current->next = temp->next

   Delete temp

   Return

  Move to next node