Northeastern University
College of Engineering
Department of Electrical and Computer Engineering
EECE 2560: Fundamentals of Engineering Algorithms
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Project : Online Auction System

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Introduction

- Primary Objective: Create an Online Auction System with a user-friendly UI
- Goals: Create the hash function and general code for such a system, implement it with user-friendly UI in the form of GUIs, add online implementation for concurrent use

Literature Review

- For our project we implemented much of the auction logic using a hash table and hashing function.
- Each key, or in this case, name of an item, is inserted into a hashing function and then placed into a hash table at a specific index.
- In our project the hashing key is tied to an Item object which is located at that specific index within the hash table using a pointer. Each item object contains the item's name, the bidder's name, and the current highest bid on that item.

Methodology

- Description of Methods and Techniques
  Data Preprocessing Steps
  Pseudo Code for Techniques
  Time Complexity Estimation
  Data Structures Utilized

Analysis and Results

- Presentation of Key Findings
  Charts, Graphs, and Tables
  Interpretation of Results

Discussion

- Implications of Findings
  Study Limitations

Conclusion

- Conclusions from the Study
  Recommendations for Future Research

References

- List of All Cited Sources
- https://www.geeksforgeeks.org/hash-table-data-structure/

References (Cont.)

- Jackson (QT) Refs
- https://www.youtube.com/watch?v=WTb99Rd3Vu0
- https://stackoverflow.com/questions/1020749/what-are-public-private-and-protected-in-object-oriented-programming
- https://www.geeksforgeeks.org/cerr-standard-error-stream-object-in-cpp/
- https://stackoverflow.com/questions/299304/why-does-javas-hashcode-in-string-use-31-as-a-multiplier
- https://www.youtube.com/watch?v=cXojtB8vS2E&t=3s
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