COMPUTER SCIENCE

UNIT E WEEK 4, TUESDAY FEB 6TH + THURSDAY FEB 8TH

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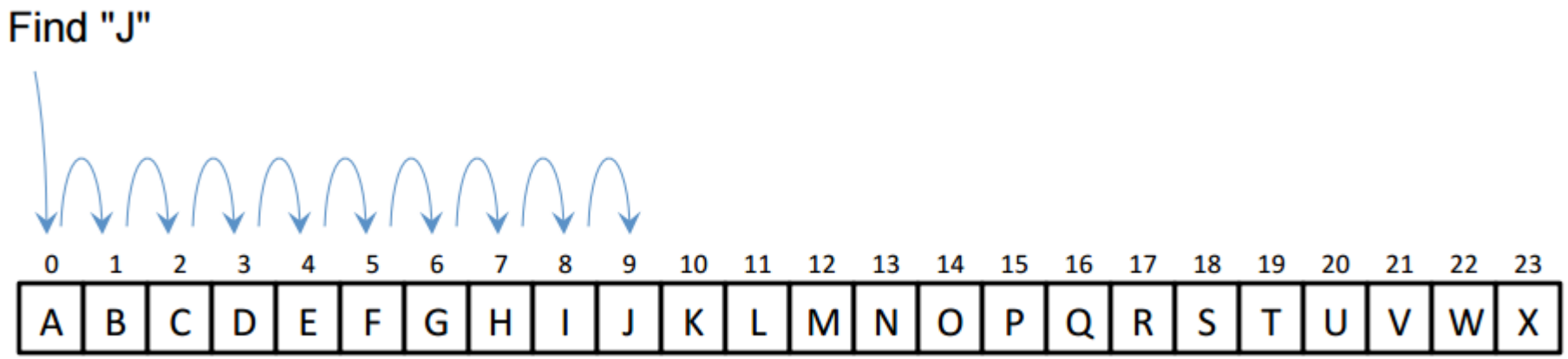
THIS WEEK IS CS AND STEM

- Finding where modern spiders branched in the evolutionary tree
  - http://today.ku.edu/2018/02/01/remarkable-spider-tail-found-conserved-amber-after-100-million-years
- Using prediction algorithms for:
  - Finding high risk victims during natural disasters (http://www.hcanews.com/news/canadian-team-develops-algorithm-to-pinpoint-people-at-high-risk-during-natural-disasters)
  - Psychosis in at-risk individuals (http://onlinelibrary.wiley.com/doi/10.1002/wps.20491/full)
- Making the first artificial synapse
  - https://www.inverse.com/article/40402-mit-computer-brain-artificial-synapse

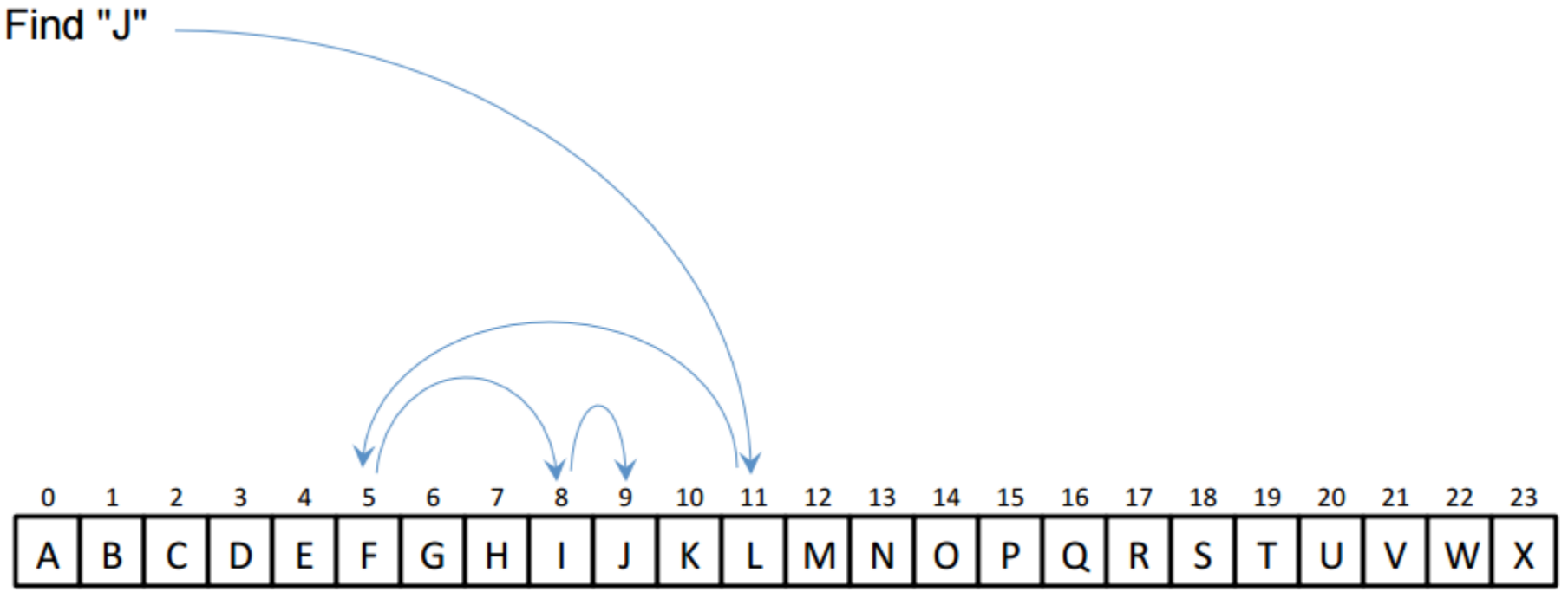
ASSIGNMENT 12

- CCC 2017 problem 4 (S4: Minimum Cost Flow). Output and input should be the same as asked in the problem. Include comments and docstrings where necessary.
- Include a secondary version of the working assignment that includes:
  - Generalized I/O: use argparse to get input and output file names and write the output information to the output file. Assume the input file has some straight-forward structure.
  - More detailed output: instead of numbers, add some short explanation.
  - Modularized functions kept in separate files and called into the main script
- Due Sunday Feb 18th by 11:59pm via email to woodford@cita.utoronto.ca

- Linear Search



- Binary Search



LET'S PRACTICE:

- Open Lecutre32_33_searches.ipynb for some practice with linear and binary searches

GROUP PRACTICE

- CCC 2017 Problems 1 and 2– S1: Sum game, S2: High Tide, Low Tide
- We've had S3 and S4 as assignments, see if you can get S5 as a group!

REFERENCES

- https://www.geeksforgeeks.org/linear-search-vs-binary-search/