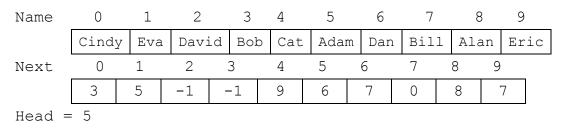
## **CS1356 Introduction to Information Engineering**

## **Homework 12**

1. The following arrays, Name [0:9] and Next [0:9], implement a linked list. It uses -1 to represent NIL.





- (b) How many elements in the linked list?
- (c) If we want to sort all the names in the alphabetical order, what the elements in the Next array and variable Head will be?
- 2. Describe procedures that use arrays to implement
  - (1) Stack (you need to describe four functions: InitStack, Push, and Pop, IsEmpty)
  - (2) Queue (you need to describe three functions: InitQueue, Dequeue, and Enqueue, isEmpty)
  - (3) Circular queue (you need to describe three functions: InitQueue, Dequeue, and Enqueue, IsEmpty, IsFull)