

Announcements

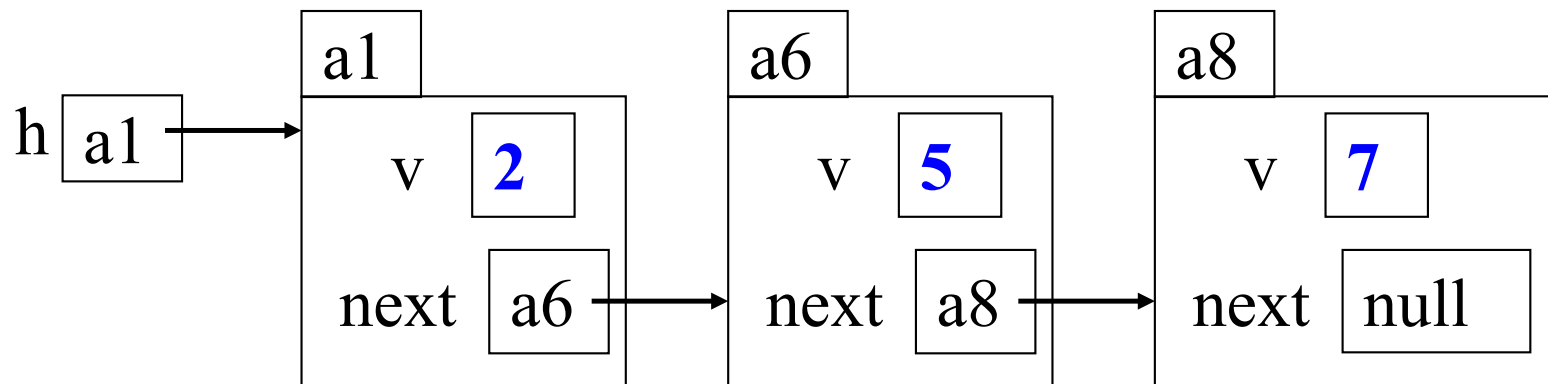
1

- **A3 will available on Piazza tomorrow.** Refer often to the Piazza FAQ Note for A3.
- **Please read the assignment A3 FAQ Notes on the Piazza before asking a question.** It might already be answered.

Assignment A3: Linked Lists

2

Idea: maintain a list (2, 5, 7) like this:

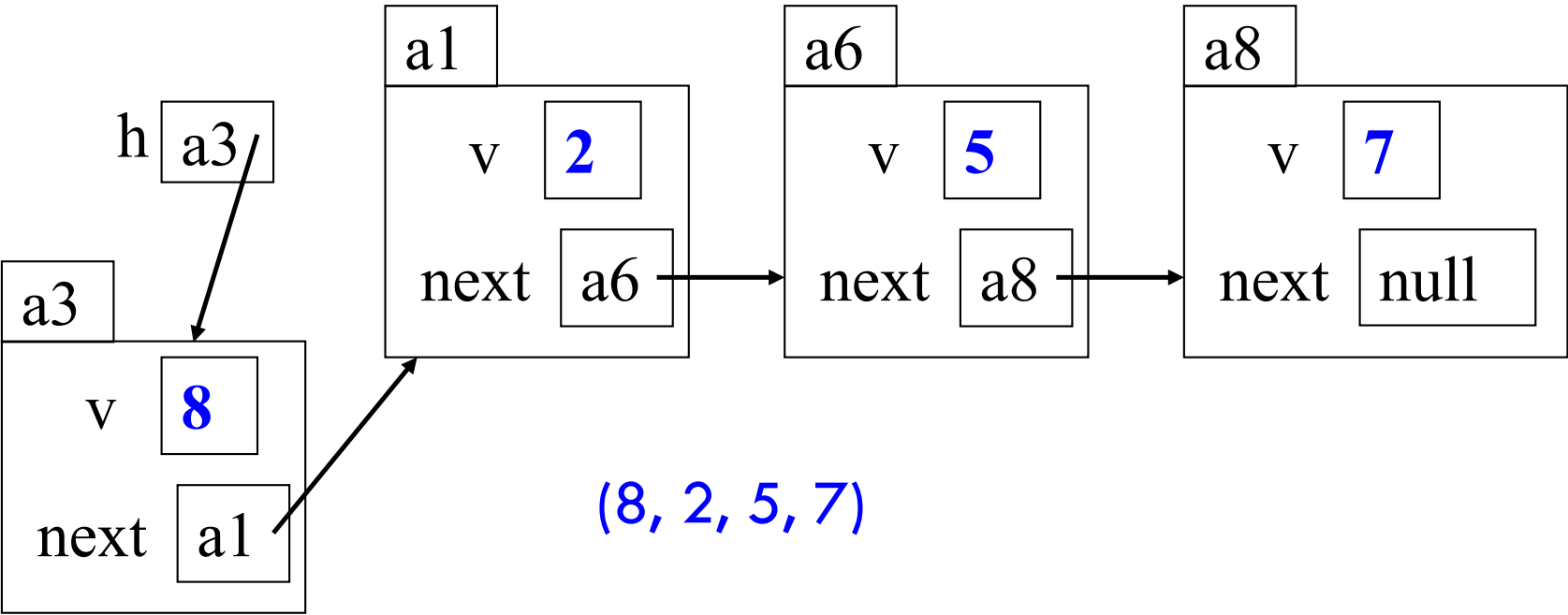
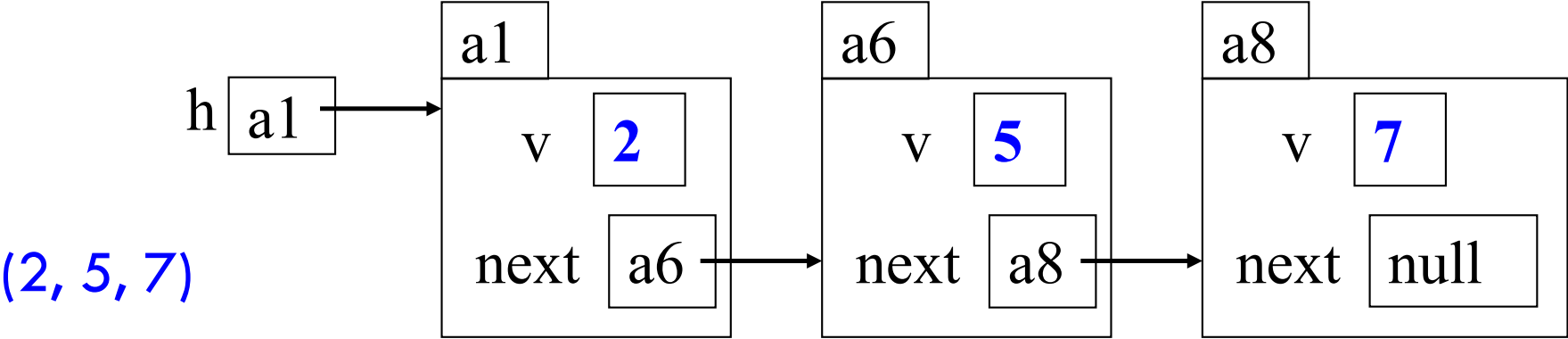


This is a singly linked list

To save space, we write names like a6 instead of N@35abcd00

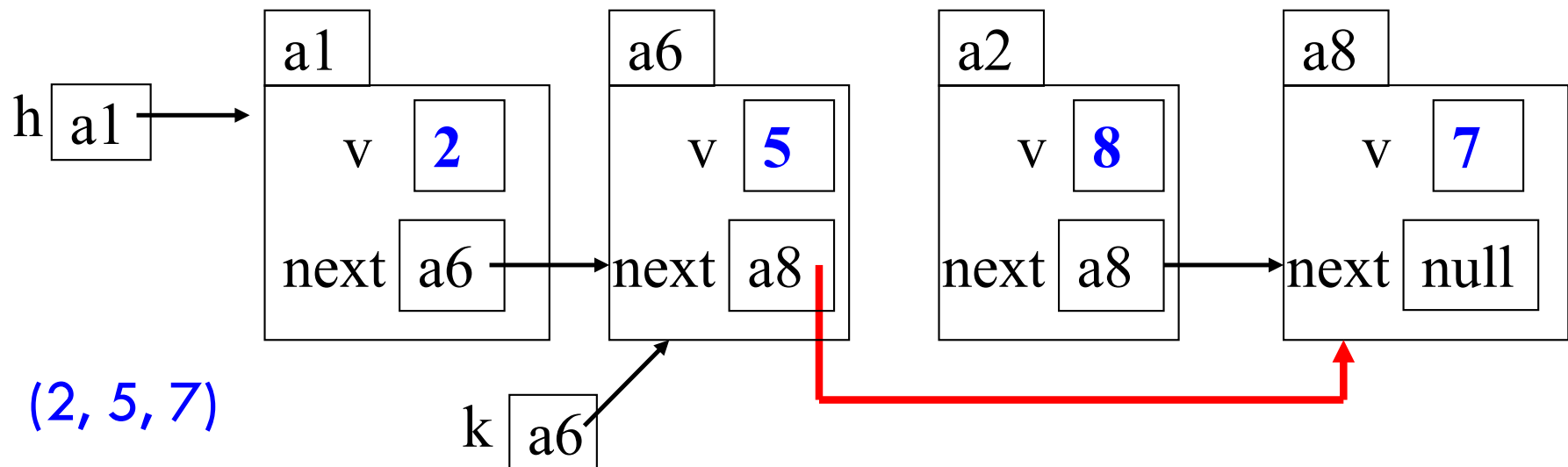
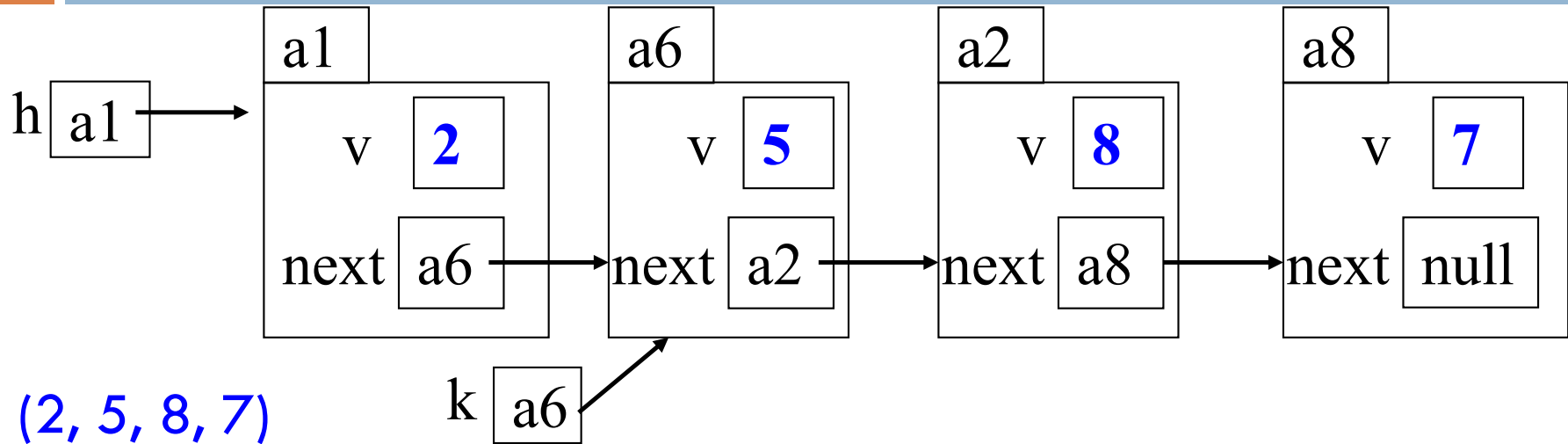
How to insert a node at the beginning

3



How to remove successor of a node in the middle

4



Assignment A3: Generics

5

```
public class LinkedList {  
    void add(Object elem) {...}  
    Object get(int index) {...}  
}
```

Values of linked list are
of class Object

```
public class LinkedList<E> {  
    void add(E elem) {...}  
    E get(int index) {...}  
}
```

You can specify what
type of values

```
ns = new LinkedList<Integer>();  
ns.add("Hello"); // error  
ns.add(5);  
String s = ns.get(0); // error  
int n = ns.get(0);
```

```
ss = new LinkedList<String>();  
ss.add("Hello");  
ss.add(5); // error  
String s = ss.get(0);  
int n = ss.get(0); // error
```