15-213 Recitation 8 - 3/12/01

Outline

- Memory Allocation
  - Lab 3 Details

Reminders

- Lab 3: Conservative Garbage Collector
  - Checkpoint Due 3/13
  - Lab Due 3/21
- At least there's nothing over Spring Break (I think)

Shaheen Gandhi

e-mail:

sgandhi@andrew.cmu.edu

Office Hours:

Wednesday 1:30 – 2:30

Wean 3108

Conservative Garbage Collection: An Example

```
typedef struct node
{
 struct node *next;
} Node;

void taste(Node *h)
{
 Node *n = h;
 h = malloc(sizeof(Node));
 h->next = n;
}

void srees(Node **h)
{
 Node *n = *h;
 *h = (*h)->next;
}
```

```
Node *head = malloc(sizeof(Node));
head->next = malloc(sizeof(Node));
taste(head);
srees(&head);
```

taste() **leaks memory**

Lab 3 Tips

- Start Early
  - Checkpoint Wednesday
  - You need a working collector by then
- Read the Lab handout
  - Now read it again
- Don’t write any code until you know what you want to do
- Review Pointer Arithmetic
- Use gdb to your advantage
  - Condition breakpoints, for instance