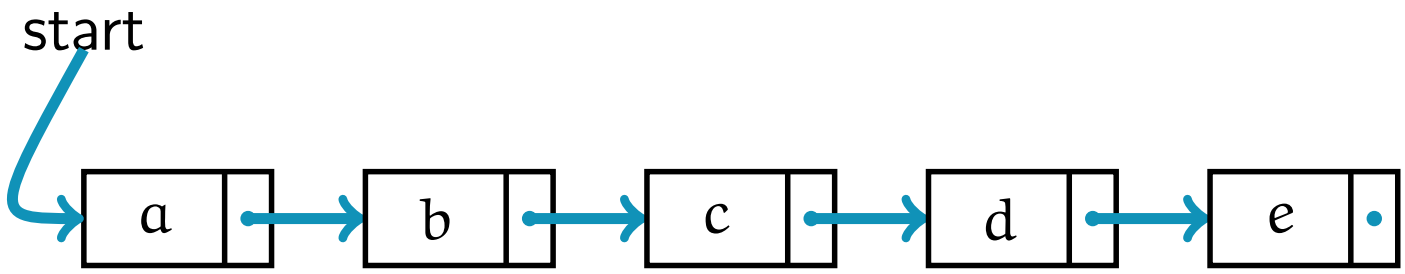
Linked Lists
- Implementation



```
struct node {
  int data;
  struct node *ptr;
};
```

```
struct node {
  int data;
  struct node *ptr;
};
```

```
sizeof(struct node)
```

```
struct node {
  int data;
  struct node *ptr;
};
        sizeof(struct node)  /* say 10 */
```

```
struct node {
  int data;
  struct node *ptr;
};
int s = sizeof(struct node); /* say 10 */
```

```
struct node {
  int data;
  struct node *ptr;
};
int s = sizeof(struct node); /* say 10 */

                          malloc(s)
```

```
struct node {
  int data;
  struct node *ptr;
};
int s = sizeof(struct node); /* say 10 */
```

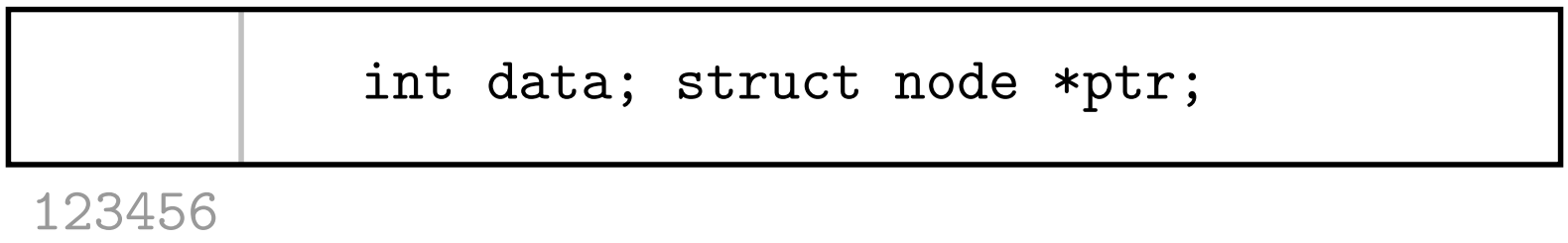
malloc(s)

123456

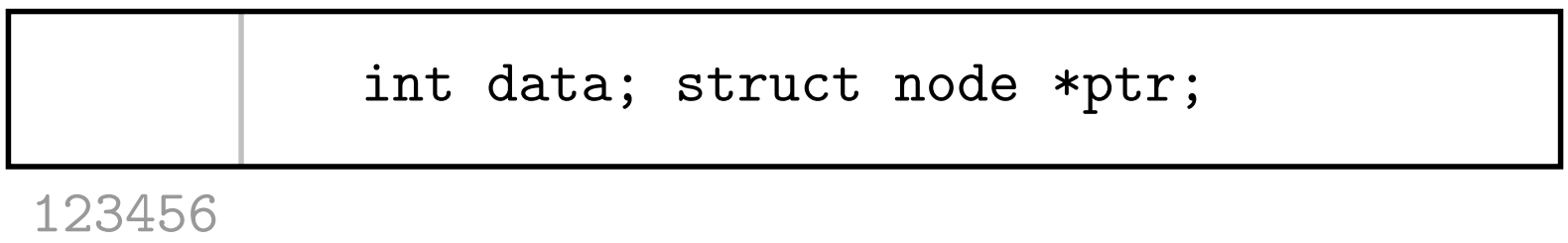
```
struct node {
  int data;
  struct node *ptr;
};
int s = sizeof(struct node); /* say 10 */

       (struct node *)malloc(s)
```

123456

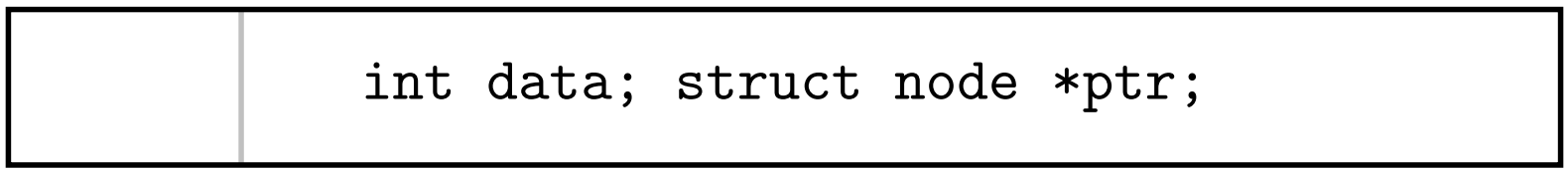
```
struct node {
  int data;
  struct node *ptr;
};
int s = sizeof(struct node); /* say 10 */

       (struct node *)malloc(s)
```



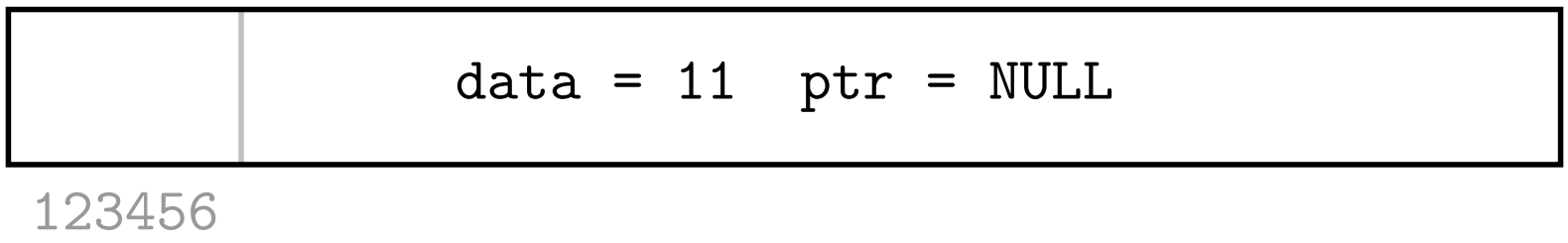
```
struct node {
  int data;
  struct node *ptr;
};

int s = sizeof(struct node); /* say 10 */

struct node *temp;
temp = (struct node *)malloc(s);
```



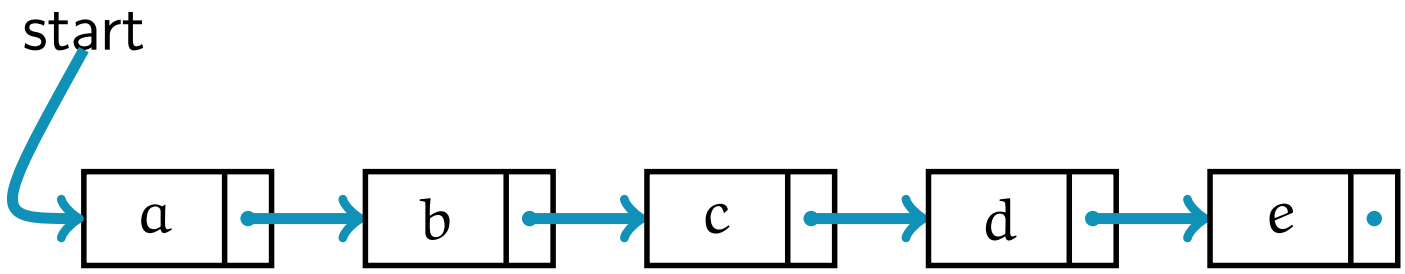
```
struct node {
  int data;
  struct node *ptr;
};

int s = sizeof(struct node); /* say 10 */

struct node *temp;
temp = (struct node *)malloc(s);

temp->data = 11; temp->ptr = NULL;
```



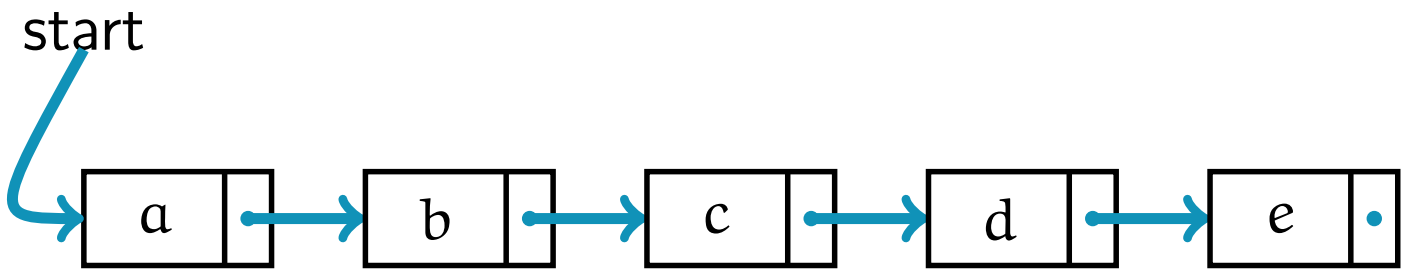
```
struct node {
  int data;
  struct node *ptr;
};

int s = sizeof(struct node); /* say 10 */

struct node *temp;
temp = (struct node *)malloc(s);

temp->data = 11; temp->ptr = NULL;
```



Linked Lists
- Implementation

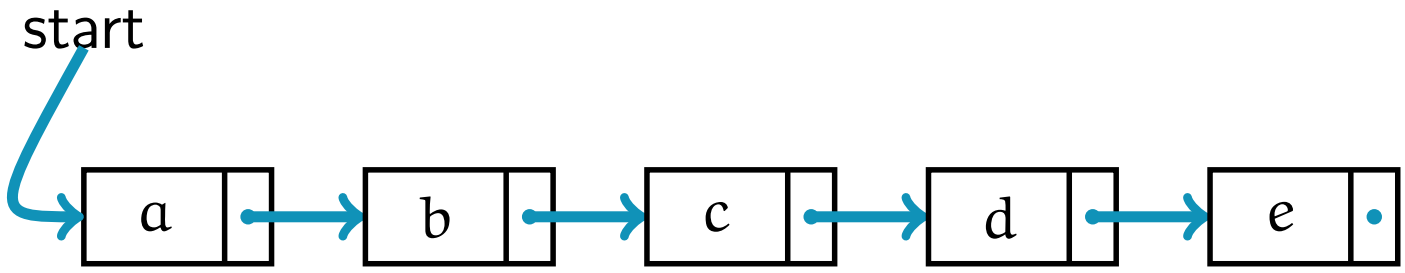


Linked Lists
- Implementation



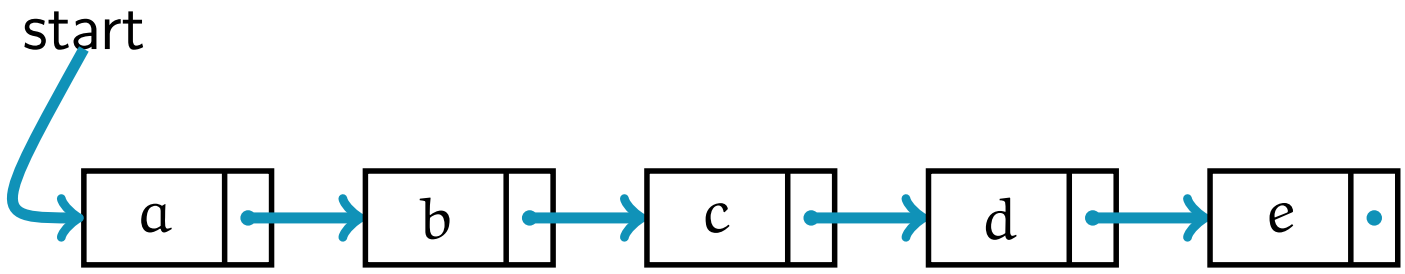

```
struct node
{
      int data;
      struct node *ptr;
};
```

Linked Lists
- Implementation




```
struct node
{
     int data;
     struct node *ptr;
};
struct node *createNode()
{
     temp = (struct node *) malloc(sizeof(struct
node));
      return temp;
}
```

Linked Lists
- Implementation




```
struct node
{
      int data;
      struct node *ptr;
};
void freeNode(struct node *node)
{
      free(node);
}
```

Linked Lists

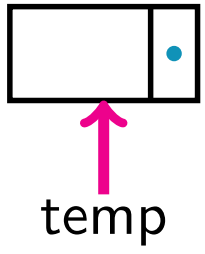
- Create

Linked Lists - Create

```
struct node *temp;
```

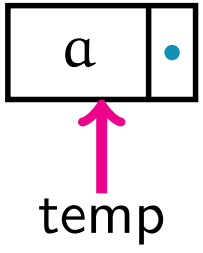
Linked Lists
- Create

```
struct node *temp;
temp = createNode();
```



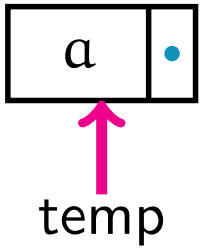
Linked Lists
- Create

```
struct node *temp;
temp = createNode();
temp->data = 'a';
```



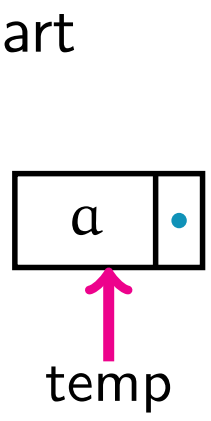
Linked Lists
- Create

```
struct node *temp;
temp = createNode();
temp->data = 'a';
temp->ptr = NULL;
```



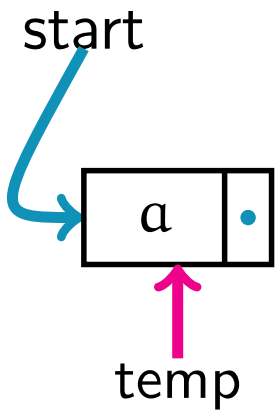
Linked Lists - Create

```
struct node *start, *temp;
temp = createNode();
temp->data = 'a';
temp->ptr = NULL;
```



Linked Lists
- Create

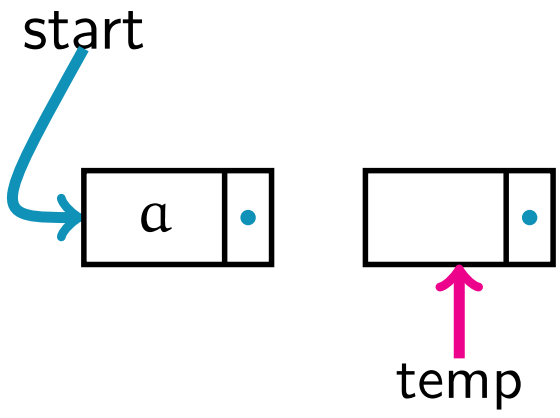
```
struct node *start, *temp;
temp = createNode();
temp->data = 'a';
temp->ptr = NULL;
start = temp;
```



Linked Lists - Create

```
struct node *start, *temp;
temp = createNode();
temp->data = 'a';
temp->ptr = NULL;
start = temp;
```

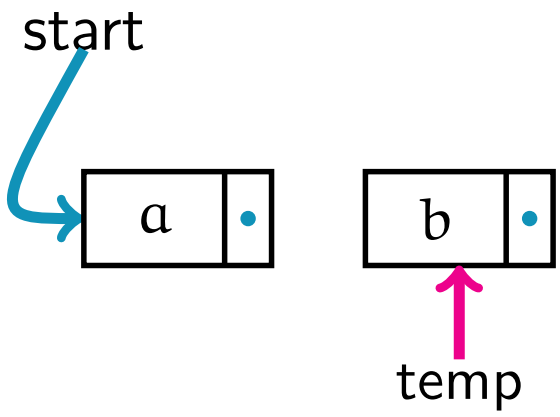
```
temp = createNode();
```



Linked Lists - Create

```
struct node *start, *temp;
temp = createNode();
temp->data = 'a';
temp->ptr = NULL;
start = temp;
```

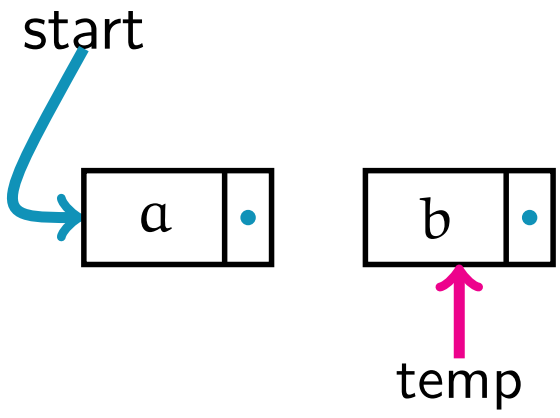
```
temp = createNode();
temp->data = 'b';
```



Linked Lists - Create

```
struct node *start, *temp;
temp = createNode();
temp->data = 'a';
temp->ptr = NULL;
start = temp;
```

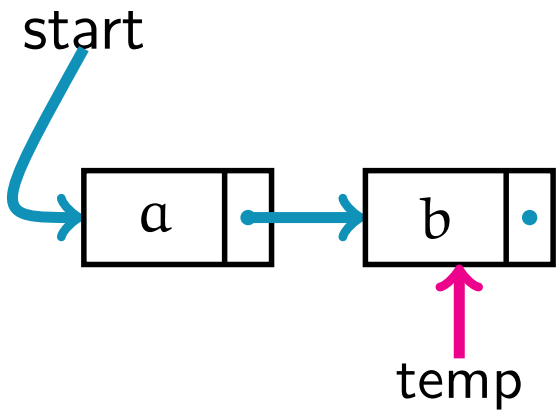
```
temp = createNode();
temp->data = 'b';
temp->ptr = NULL;
```



Linked Lists - Create

```
struct node *start, *temp;
temp = createNode();
temp->data = 'a';
temp->ptr = NULL;
start = temp;
```

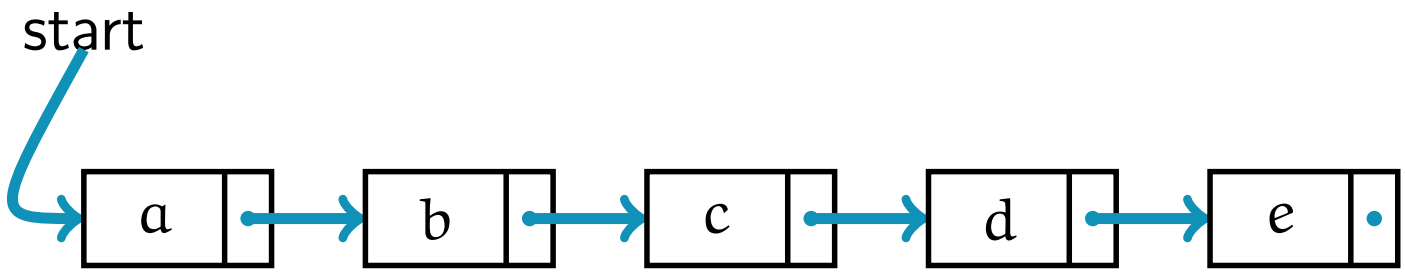
```
temp = createNode();
temp->data = 'b';
temp->ptr = NULL;
start->ptr = temp;
```



Linked Lists - Create

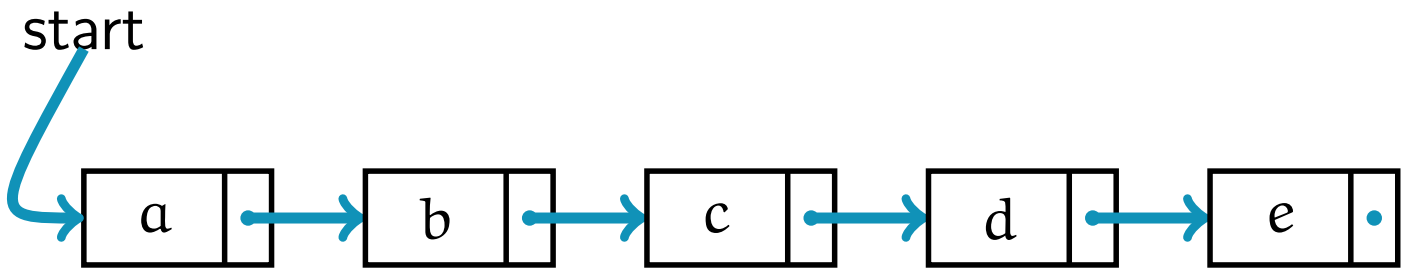
```
struct node *start, *temp;
temp = createNode();
temp->data = 'a';
temp->ptr = NULL;
start = temp;
```

```
temp = createNode();
temp->data = 'b';
temp->ptr = NULL;
start->ptr = temp;
```

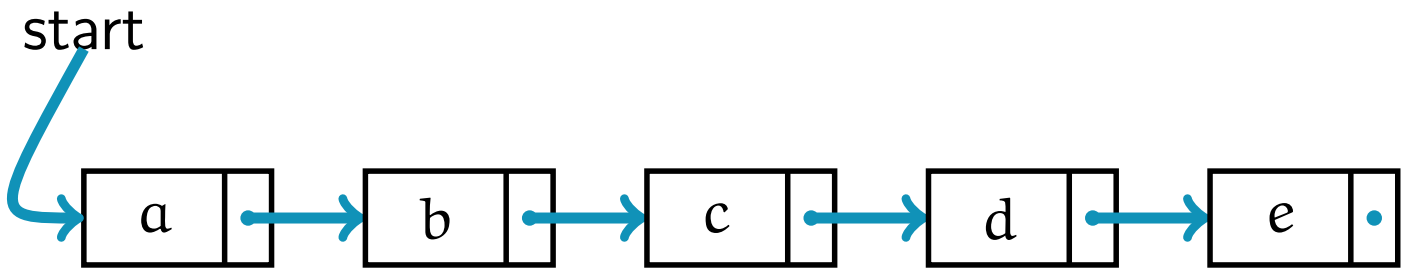


Linked Lists

- Print

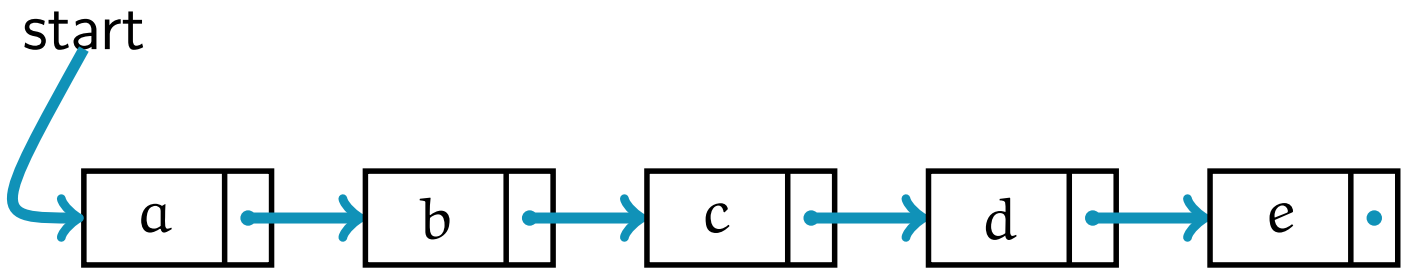


Linked Lists
- Print



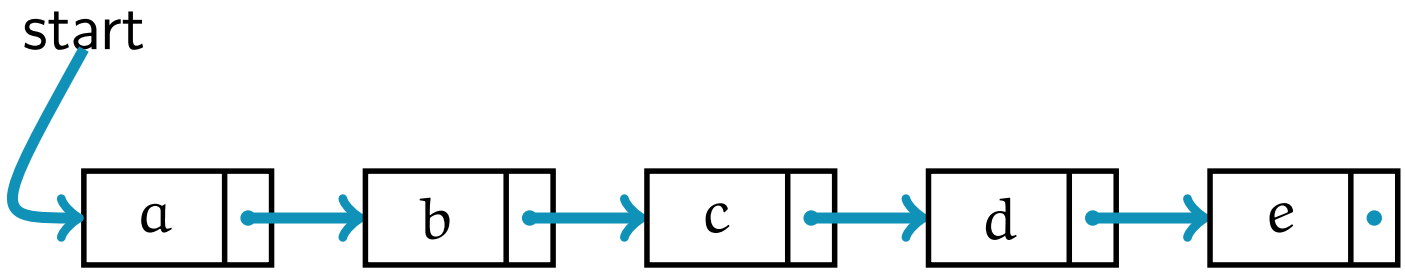

```
void printList(struct node *start)
{




}
```

Linked Lists - Print



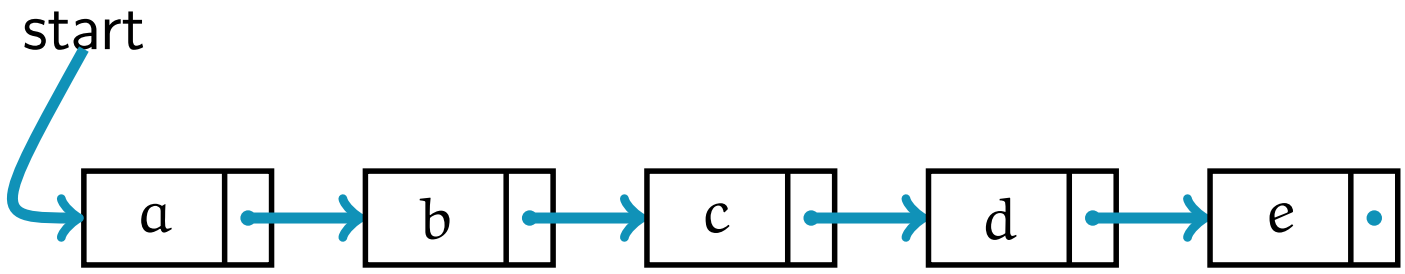

```
void printList(struct node *start)
{
      struct node *temp;
      temp = start;




}
```

Linked Lists
- Print



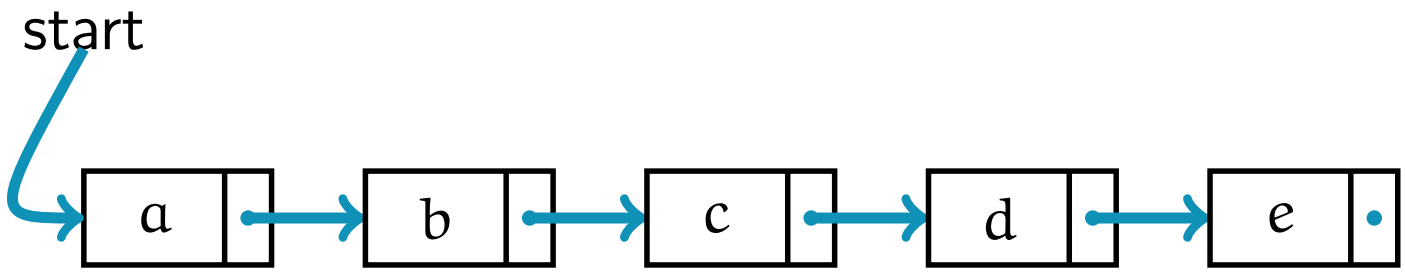

```
void printList(struct node *start)
{
      struct node *temp;
      temp = start;
      while(temp != NULL)
      {


      }
}
```

Linked Lists
- Print




```
void printList(struct node *start)
{
     struct node *temp;
     temp = start;
     while(temp != NULL)
     {
          printf("%d", temp->data);/*≡(*temp).data */

     }
}
```

Linked Lists - Print




```
void printList(struct node *start)
{
      struct node *temp;
      temp = start;
      while(temp != NULL)
      {
            printf("%d", temp->data);/*≡(*temp).data */
            temp = temp->ptr;
      }
}
```