

Pointers

- All pointers should be initialized to NULL

```
int *pValue = NULL;
```

```
int *pChar;
```

```
pChar = NULL;
```

Pointers

- All free()ed pointers should be set to NULL

```
int *pVal = malloc(sizeof(int));
```

```
*pVal = 300;
```

```
free(pVal);  
pVal = NULL;
```

List

- *Insert* must make a copy of the memory sent in by the user
 - use malloc
 - use memcpy
- *Peek* must **copy** the data pointed to by pData to pBuffer
 - do not use malloc
 - use memcpy

- `memcpy(void *dest, const void *src, size_t n);`

copy n bytes from src to dest

```
void* pPtr = malloc(sizeof(int));  
int val = 10;
```

```
memcpy(pPtr, &val, sizeof(int));  
printf("%d %d", val, *(int*) pPtr);  
free(pPtr);
```

lstInsertAfter() - memory drawing

```
int value = 4;  
List sList;
```

```
// assume sList is empty!  
lstInsertAfter (&sList, &value, sizeof(int));
```


Walk a List

```
List sList;  
ListElementPtr psCurr;  
// create list
```


Insert