Page* p = bufferManager->allocatePage(...);
// Gets a "Raw" Page from a RawFile

```
p  
```

```
Page object – 8KB of memory
```

```
p treats whatever it points to as a Page object
```

```
"I see a page"
```
LeafNode* node = new LeafNode;

```
  I see a LeafNode
```

node treats whatever it points to as a LeafNode
Page* p = bufferManager->allocatePage(...);
LeafNode* node;

p sees object as a Page

Page object – 8KB of memory
Page* p = bufferManager->allocatePage(...);
LeafNode* node;
node = (LeafNode*) p;

Page object – 8KB of memory

```
keyArray
[ ] [ ] [ ] [ ]
```

```
ridArray
[ ] [ ] [ ] [ ]
```

```
rightSibPageNo
[ ]
```

p sees object as a Page
but
node sees it as a LeafNode

“I see a LeafNode”
Page* p = bufferManager->allocatePage(...);
LeafNode* node;
node = (LeafNode*) p;
node->keyArray[0] = 2;
node->rightSibPageNo = 5;

Page object – 8KB of memory

```
keyArray
2
```

```
ridArray
```

```
rightSibPageNo
5
```

p sees object as a Page
but
node sees it as a LeafNode

"I see a LeafNode"
Page* p = bufferManager->allocatePage(...);
LeafNode* node;
node = (LeafNode*) p;
node->keyArray[0] = 2;
node->rightSibPageNo = 5;
...

Page object – 8KB of memory

```
keyArray
| 2 | 5 | 9 |
```

```
ridArray
| 6.3 | 2.5 | 1.8 |
```

```plaintext
rightSibPageNo
5
```

p sees object as a Page
but
node sees it as a LeafNode

"I see a LeafNode"
Page* p = bufferManager->allocatePage(...);
LeafNode* node;
node = (LeafNode*) p;
node->keyArray[0] = 2;
node->rightSibPageNo = 5;
...
bufferManager->writePage(p);

Page object – 8KB of memory

```
2  5  9
```

```
6.3  2.5  1.8
```

```
5
```

p sees object as a Page
but
node sees it as a LeafNode

“I see a LeafNode”
Page* p = bufferManager->readPage(...);
return ((LeafNode*)p)->keyArray[2];
Page* p = bufferManager->readPage(...);
return ((LeafNode*)p)->keyArray[2];

Look at is if it were a leaf node
Page* p = bufferManager->readPage(...);
return ((LeafNode*)p)->keyArray[2];

Look at is if it were a leaf node

Page object – 8KB of memory

keyArray

| 2 | 5 | 9 |

ridArray

| 6.3 | 2.5 | 1.8 |

rightSibPageNo

5