Methods of the Database Buffer

GET(Px):	returns a reference to Px
FIX(Px):	page Px may not be evicted anymore
UNFIX(Px):	page Px may be evicted
PAGE_IN_BUFFER(Px):	returns true, if buffer contains page Px
CHOOSE_PAGE():	chooses a page to evict and returns a reference to page

Implementation of GET

Get(Px):

```
1.  If (not PAGE_IN_BUFFER(Px)):                    // check whether already exists
2.          if (no empty slot available in buffer):  // is there space to load a page?
3.                  S = Pi = CHOOSE_PAGE();          // choose a page to kick out
4.                  if (Pi is dirty):                // did anyone change this page?
```

Implementation of GET

Costs

Get(Px):

```
1.  If (not PAGE_IN_BUFFER(Px)):                    // check whether already exists
2.          if (no empty slot available in buffer): // is there space to load a page?
3.                  S = Pi = CHOOSE_PAGE();         // choose a page to kick out
4.                  if (Pi is dirty):               // did anyone change this page?
5.                          flush Pi to external memory; // oops, got to write it out first
6.          else:                                   // we have space left anyway...
7.                  S = getFreeSlot();              // pick a free page
8.          read(Px, S);                            // read Px into free slot
9.  fix(Px);                                        // fix page Px
10. return Px;                                      // return a reference to Px
```

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2 Random I/Os