Given an Iterator class interface with methods: next() and hasNext(), design and implement a PeekingIterator that support the peek() operation -- it essentially peek() at the element that will be returned by the next call to next().

**Example:**

Assume that the iterator is initialized to the beginning of the list: **[1,2,3]**.

Call **next()** gets you **1**, the first element in the list.

Now you call **peek()** and it returns **2**, the next element. Calling **next()** after that ***still*** return **2**.

You call **next()** the final time and it returns **3**, the last element.

Calling **hasNext()** after that should return **false**.

**Follow up**: How would you extend your design to be generic and work with all types, not just integer?