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CS 372

Assignment 2

1. The vector app is the vector test app from the 2nd lecture where stl vectors are being filled to a certain capacity and the program times how long it takes to fill up the vectors. The bag app is a simple program that pulls 20 numbers out of a bag and displays them.
2. Both vectors executed in 0 seconds. The STL vector could've gone faster due to it already coming from a pre-established C++ library. The other vector requires the computer to think a bit more.
- 3.

```
#include <iostream>
using namespace std;

class ReceiptBag:
{
    def __init__(self):
    {
        self.items = [];
        self.receipts = [];
    }

    def put(self, item):
    {
        rec = len(self.items);
        self.items.append(item);
        self.receipts.append(rec);
        return rec;
    }

    def remove(self, receipt):
    {
        for i in range(len(self.receipts)):
            if self.receipts[i] == receipt:
                {
                    removed = self.items[i];
                    del self.items[i];
                    del self.receipts[i];
                    return removed;
                }
        return None;
    }
}

int main()
{
    return 0;
}
```