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Include

*) Calculate the total amount to be paid to the shop-keeper

2 Identify the product for which we paid maximum GST

3 Create a suitable data structure to hold products in the basket

4. Let the solution be generic enough to accommodate more products to basket

```
#include<bits/stdc++.h>
using namespace std;

struct Product{
   string name;
   int price;
   float gst;
   int quantity;

};

class basket{
   vector<Product> list;
   float total;
   float max_gst;
   public:
   void add_items(){
```

```
  int cc = 0;

   do{
   cout<<"Enter Product details:\n";
   string nam;
   int  price, quan;
   float rate;
   cout<<"Enter name, price, gst and quantity in order(space seprated) \n\n";
   getline(cin, nam);
   cin. clear();
   cin.ignore();
   cin>> price>>rate>>quan;
   Product temp;
   temp.name = nam; temp.price = price; temp.gst = rate; temp.quantity = quan;

   list.push_back(temp);
   cin. clear();
   cin.ignore();

   cout<<"Enter succesfully.... (press non zero value to add more):\n";
   cin>> cc;

}
while(cc);
}

float grand_total(){
   float t_total = 0.0;
   for(auto& it: list){

      float value = (it.price * it.gst)/100;
```

```
            if(it.price >= 500)
            t_total += ((value * 0.95)* it.quantity);
            else
            t_total += (value * it.quantity);
        }
        total = t_total;
        return total;
    }

    float calc_max_gst(){
        this->max_gst = 0.0;
        for(auto& it: list){
            if(it.gst > max_gst)
            max_gst = it.gst;
        }
        return max_gst;
    }

};

int main(){
    basket obj;
    obj.add_items();
    cout<<obj.grand_total()<<endl;
    cout<<obj.calc_max_gst();

    return 0;
}
```