All about STL pairs:

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

int main()
{
    // pair<int,int> p;
    // p.first=2;
    // p.second=3;
    // cout<<"p.first: "<<p.first<<" p.second:
"<<p.second<<endl;

    pair<int,string> s;
    s.first=1;
    s.second="utksrsha";
    cout<<"first: "<<s.first<<" second:
"<<s.second<<endl;

    pair<long,string> pin;
    pin=make_pair(416410,"Miraj");
    cout<<"first: "<<pin.first<<" second:
"<<pin.second<<endl;

    pair<int,string> c;
    c={416416,"sangli"};
    cout<<"first: "<<c.first<<" second:
"<<c.second<<endl;

cout<<endl;
    //pair copy
    pair<int,string> a=c;
    cout<<"first: "<<a.first<<" second:
"<<a.second<<endl;
    a.first=1000;
```

```cpp
    cout<<"a\nfirst: "<<a.first<<" second:
"<<a.second<<endl;
    cout<<"c\nfirst: "<<c.first<<" second:
"<<c.second<<endl;


    //pair copy by reference
    pair<int,string> &b=c;
    b.first=2000;
    cout<<"b\nfirst: "<<b.first<<" second:
"<<b.second<<endl;
    cout<<"c\nfirst: "<<c.first<<" second:
"<<c.second<<endl;

cout<<"=========================="<<endl;
    //Q.Why pairs?
    int aa[]={1,2,3};
    int bb[]={2,3,4};

    pair<int,int> p_arr[3];
    p_arr[0]={1,2};
    p_arr[1]={2,3};
    p_arr[2]={3,4};


cout<<"Before swap"<<endl;
    for(int i=0;i<3;i++){
        cout<<"first: "<<p_arr[i].first<<" second:
"<<p_arr[i].second<<endl;
    }
cout<<"After swap"<<endl;

    swap(p_arr[0],p_arr[2]);
    for(int i=0;i<3 ;i++){
```

```cpp
        cout<<"first: "<<p_arr[i].first<<" second: "<<p_arr[i].second<<endl;
    }


cout<<"=================================="<<endl;
//input from user
    pair<int,int> t;
    // cout<<"enter first ele of pair: ";
    cin>>t.first;
    // cout<<"enter second ele of pair: ";
    cin>>t.second;

    cout<<"first: "<<t.first<<" second: "<<t.second<<endl;



    return 0;

}
```