Λύσεις 2ου Εργαστηρίου

Ερώτηση 1

```
#include <iostream>
#include <string>

using namespace std;

class Patient
{
	string name;
	int birthyear;
	string address;
	string clinic;
	string room;
	string tel;

public:
	Patient(string _name, int _birthyear, string _address, string _clinic,
string _room, string _tel)
	{
		name = _name;
		birthyear = _birthyear;
		address = _address;
		clinic = _clinic;
		room = _room;
		tel = _tel;
	}

	Patient()
	{
		name = "N/A";
		birthyear = 0;
		address = "N/A";
		clinic = "N/A";
		room = "N/A";
		tel = "N/A";
	}

	Patient(const Patient& copy)
	{
		name = copy.name;
		birthyear = copy.birthyear;
		address = copy.address;
		clinic = copy.clinic;
		room = copy.room;
		tel = copy.tel;
	}

	void setName(string _name)
	{
		name = _name;
	}
```

```
	void setBirthyear(int _birthyear)
	{
		birthyear = _birthyear;
	}

	void setAddress(string _address)
	{
		address = _address;
	}

	void setClinic(string _clinic)
	{
		clinic = _clinic;
	}

	void setRoom(string _room)
	{
		room = _room;
	}

	void setTel(string _tel)
	{
		tel = _tel;
	}


	void display()
	{
		cout << "Patient info: " << endl;
		cout << "Name: " << name << endl;
		cout << "Birth year: " << birthyear << endl;
		cout << "Address: " << address << endl;
		cout << "Clinic: " << clinic << endl;
		cout << "Room: " << room << endl;
		cout << "Tel: " << tel << endl;
	}

	int getPatientAge(int current_year)
	{
		//We can make the calculation and return the result in one line
		return current_year - birthyear;
	}

};

int main()
{
	Patient p("John Doe", 1970, "Ermou 5", "A' pathologiki", "303",
"2106677888");
	p.display();
	cout << "Patient age: " << p.getPatientAge(2015) << endl;

	system("pause");
}
```

Ερώτηση 2

```
#include <iostream>
#include <string>

using namespace std;

class Address
{
	string street;
	string number;
	string zip;
	string city;

public:
	Address(string _street, string _number, string _zip, string _city)
	{
		street = _street;
		number = _number;
		zip = _zip;
		city = _city;
	}

	Address()
	{
		street = "N/A";
		number = "N/A";
		zip = "N/A";
		city = "N/A";
	}

	void setStreet(string _street)
	{
		street = _street;
	}

	void setNumber(string _number)
	{
		number = _number;
	}

	void setZip(string _zip)
	{
		zip = _zip;
	}

	void setCity(string _city)
	{
		city = _city;
	}

	void display()
	{
		cout << "Address info " << endl;
		cout << street << " " << number << endl;
		cout << zip << " " << city << endl;
	}
};
```

```
class Patient
{
	string name;
	int birthyear;
	Address address;
	string clinic;
	string room;
	string tel;

public:
	Patient(string _name, int _birthyear, Address _address, string _clinic,
string _room, string _tel)
	{
		name = _name;
		birthyear = _birthyear;
		address = _address;
		clinic = _clinic;
		room = _room;
		tel = _tel;
	}

	Patient()
	{
		//O default constructor ths 'address' kaleitai automata,
		//den xreiazetai na kanoume kati emeis
		name = "N/A";
		birthyear = 0;
		clinic = "N/A";
		room = "N/A";
		tel = "N/A";
	}

	Patient(const Patient& copy)
	{
		name = copy.name;
		birthyear = copy.birthyear;
		address = copy.address;
		clinic = copy.clinic;
		room = copy.room;
		tel = copy.tel;
	}

	void setName(string _name)
	{
		name = _name;
	}

	void setBirthyear(int _birthyear)
	{
		birthyear = _birthyear;
	}

	void setAddress(Address _address)
	{
		address = _address;
	}

	void setClinic(string _clinic)
	{
		clinic = _clinic;
```

```
	}

	void setRoom(string _room)
	{
		room = _room;
	}

	void setTel(string _tel)
	{
		tel = _tel;
	}


	void display()
	{
		cout << "Patient info: " << endl;
		cout << "Name: " << name << endl;
		cout << "Birth year: " << birthyear << endl;
		address.display();
		cout << "Clinic: " << clinic << endl;
		cout << "Room: " << room << endl;
		cout << "Tel: " << tel << endl;
	}

	int getPatientAge(int current_year)
	{
		//We can make the calculation and return the result in one line
		return current_year - birthyear;
	}

};

int main()
{
	Address a("Ermou", "7A", "14433", "Athens");
	Patient p("John Doe", 1970, a, "A' pathologiki", "303", "2106677888");
	p.display();

	system("pause");
}
```

Ερώτηση 3

```
#include <iostream>
#include <string>

using namespace std;

class Address
{
	string street;
	string number;
	string zip;
	string city;

public:
	Address(string _street, string _number, string _zip, string _city)
	{
		street = _street;
		number = _number;
		zip = _zip;
		city = _city;
	}

	Address()
	{
		street = "N/A";
		number = "N/A";
		zip = "N/A";
		city = "N/A";
	}

	void setStreet(string _street)
	{
		street = _street;
	}

	void setNumber(string _number)
	{
		number = _number;
	}

	void setZip(string _zip)
	{
		zip = _zip;
	}

	void setCity(string _city)
	{
		city = _city;
	}

	void display()
	{
		cout << "Address info " << endl;
		cout << street << " " << number << endl;
		cout << zip << " " << city << endl;
	}
};
```

```
class Patient
{
	string name;
	int birthyear;
	Address address;
	string clinic;
	string room;
	string tel;

public:
	Patient(string _name, int _birthyear, Address _address, string _clinic,
string _room, string _tel)
	{
		name = _name;
		birthyear = _birthyear;
		address = _address;
		clinic = _clinic;
		room = _room;
		tel = _tel;
	}

	Patient()
	{
		//O default constructor ths 'address' kaleitai automata,
		//den xreiazetai na kanoume kati emeis
		name = "N/A";
		birthyear = 0;
		clinic = "N/A";
		room = "N/A";
		tel = "N/A";
	}

	Patient(const Patient& copy)
	{
		name = copy.name;
		birthyear = copy.birthyear;
		address = copy.address;
		clinic = copy.clinic;
		room = copy.room;
		tel = copy.tel;
	}

	void setName(string _name)
	{
		name = _name;
	}

	void setBirthyear(int _birthyear)
	{
		birthyear = _birthyear;
	}

	void setAddress(Address _address)
	{
		address = _address;
	}

	void setClinic(string _clinic)
	{
		clinic = _clinic;
	}
```

```
	void setRoom(string _room)
	{
		room = _room;
	}

	void setTel(string _tel)
	{
		tel = _tel;
	}


	void display()
	{
		cout << "Patient info: " << endl;
		cout << "Name: " << name << endl;
		cout << "Birth year: " << birthyear << endl;
		address.display();
		cout << "Clinic: " << clinic << endl;
		cout << "Room: " << room << endl;
		cout << "Tel: " << tel << endl;
	}

	int getPatientAge(int current_year)
	{
		//We can make the calculation and return the result in one line
		return current_year - birthyear;
	}

};

int main()
{
	Patient p[10];

	int count = 0;
	string stop = "0";
	string nm, cl, rm, tl, st, nu, zp, ct;
	int yr;

	do
	{
		cout << "--------Input for patient -------" << endl;

		cout << "Patient name: " << endl;
		getline(cin, nm);
		p[count].setName(nm);

		cout << "Birth year: " << endl;
		cin >> yr;
		cin.ignore();
		p[count].setBirthyear(yr);

		cout << "Clinic: " << endl;
		getline(cin, cl);
		p[count].setClinic(cl);

		cout << "Room: " << endl;
		getline(cin, rm);
		p[count].setRoom(rm);
```

```
            cout << "Relative's Telephone: " << endl;
            getline(cin, tl);
            p[count].setTel(tl);

            Address tempAddr;
            cout << "Street: " << endl;
            getline(cin, st);
            tempAddr.setStreet(st);

            cout << "Number: " << endl;
            getline(cin, nu);
            tempAddr.setNumber(nu);

            cout << "Zip: " << endl;
            getline(cin, zp);
            tempAddr.setZip(zp);

            cout << "City: " << endl;
            getline(cin, ct);
            tempAddr.setCity(ct);

            p[count].setAddress(tempAddr);

            count++;

            cout << "Gia na stamatiseis pata 0, alliws kati pata allo" << endl;
            getline(cin, stop);
      }
      while(count< 10 && stop != "0");

      cout << "--------Printing patient data -------" << endl;
      for(int i=0; i<count; i++)
            p[i].display();

      system("pause");
}
```