

组号: _____



山东师范大学
SHANDONG NORMAL UNIVERSITY

信息科学与工程学院实验报告

《面向对象程序设计》

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面向对象程序设计实验报告

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时间		地点		周次		页码	
源码	<input type="checkbox"/> 无源码 <input type="checkbox"/> 文档源码 <input type="checkbox"/> 托管源码						

实验报告要求：请围绕实验目的、实验内容、实验过程（图文并茂）、实验结果（高清截图）、实验总结（重点阐述）五个部分进行撰写。报告中若涉及源代码内容，请在附录部分提供完整源码及源码托管地址。

报告撰写完毕后请提交 PDF 格式版本到云班课。

一、实验目的

掌握指针和引用本质

掌动态内存分配方法(new,delete)

了解异常处理机制(try-catch)

强化 visual studio 代码调试技巧

二、实验内容

* 读程序:本章课后习题第四大题(P.48 页);

* 写程序:本章课后习题第五大题(P.50 页)

三、实验过程

E310 上机

四、实验结果

四大题：

1

2

```
C:\Users\ASUS\Desktop\c语言\fgbhm\bin\Debug\fgbhm.exe
.:i=0
i=7
.:i=1
i=5
.:i=1
i=6
.:i=100

Process returned 0 (0x0)   execution time : 0.699 s
Press any key to continue.
```

3

```
C:\Users\ASUS\Desktop\c语言\tgd\bin\Debug\tgd.exe
x=50.6 y=10 z=A
x=216.34 y=10 z=A
x=216.34 y=2 z=A
x=216.34 y=2 z=E

Process returned 0 (0x0)   execution time : 0.234 s
Press any key to continue.
```

4

```
C:\Users\ASUS\Desktop\c语言\fdxcd\bin\Debug\fdxcd.exe
500    1000    0
500    1500    0
500    2000    2000
500    200     2000

Process returned 0 (0x0)   execution time : 0.656 s
Press any key to continue.
```

5

```
C:\Users\ASUS\Desktop\c语言\fdxcd\bin\Debug\fdxcd.exe
x=35,y=25

Process returned 0 (0x0)   execution time : 0.484 s
Press any key to continue.
```

6

五大题：

```
C:\Users\ASUS\Desktop\c语言\fggh\bin\Debug\fggh.exe
Please input x and y:
123 234
sum=357

Process returned 0 (0x0)   execution time : 19.108 s
Press any key to continue.
```

1

```
C:\Users\ASUS\Desktop\c语言\fggh\bin\Debug\fggh.exe
2
C=12.5664S=12.5664

Process returned 0 (0x0)   execution time : 2.180 s
Press any key to continue.
```

2

```
C:\Users\ASUS\Desktop\c语言\fggh\bin\Debug\fggh.exe
1 2 3 4 5 6 7 -1 -2 -3 -4 -5 -6 -7 8 9 10 -8 -9 -10
正数为10
负数为10

Process returned 0 (0x0)   execution time : 41.378 s
Press any key to continue.
```

3

```
C:\Users\ASUS\Desktop\c语言\fggh\bin\Debug\fggh.exe
王淑贤 19 77
该同学的分数为: 77
该同学的年龄为: 19
该同学的成绩为: 77

Process returned 0 (0x0)   execution time : 54.959 s
Press any key to continue.
```

4

五、实验总结

无

■ 附录：程序源码

四、

1.#include <iostream>

using namespace std;

```
int main()
{
    int a,b,c;
    char ch;
    cin>>a>>ch>>b>>c;
    cout<<a<<endl<<ch<<endl<<b<<endl<<c;
    return 0;
}
```

2.#include <iostream>

using namespace std;

```
int main()
{
    int arr[4]={1,2,3,4};
    int *a=arr;
    int *&p=a;    //p 是一个指针引用
    p++;
    *p=100;
    cout<<*a<<" "<<*p<<endl;
    for(int i=0;i<4;i++)
        cout<<arr[i]<<" ";
    cout<<endl;
    int b=10;
    p=&b;
    cout<<*a<<" "<<*p<<endl;
    for(int i=0;i<4;i++)
```

```

        cout<<arr[i]<<" ";
    cout<<endl;
    return 0;
}

3.#include <iostream>
using namespace std;
int i=0;
int main()
{
    int i=5;
    {
        int i;
        i=7;
        cout<<"::i="<<::i<<endl;
        cout<<"i="<<i<<endl;
        ::i=1;
        cout<<"::i="<<::i<<endl;
    }
    cout<<"i="<<i<<endl;
    cout<<"::i="<<::i<<endl;
    i+=::i;
    ::i=100;
    cout<<"i="<<i<<endl;
    cout<<"::i="<<::i<<endl;
    return 0;
}

```

```

4.#include <iostream>
using namespace std;
void f(double x=50.6, int y=10, char z='A');
int main()
{
    double a=216.34;
    int b=2;
    char c='E';
    f();
    f(a);
    f(a,b);
    f(a,b,c);
    return 0;
}

void f(double x, int y, char z)
{

```

```

        cout<<"x="<<x<<" y="<<y<<" z="<<z<<endl;
    }

```

5. #include <iostream>

using namespace std;

```

int & s(const int &a,int &b)
{
    b+=a;
    return b;
}

int main()
{
    int x=500,y=1000,z=0;;
    cout<<x<<' \t' <<y<<' \t' <<z<<' \n' ;
    s(x,y);
    cout<<x<<' \t' <<y<<' \t' <<z<<' \n' ;
    z=s(x,y);
    cout<<x<<' \t' <<y<<' \t' <<z<<' \n' ;
    s(x,y)=200;
    cout<<x<<' \t' <<y<<' \t' <<z<<' \n' ;
    return 0;
}

```

6. #include <iostream>

using namespace std;

```

void fun(int x,int &y)
{
    x+=y;
    y+=x;
}

int main()
{
    int x=5,y=10;
    fun(x,y);
    fun(y,x);
    cout<<"x="<<x<<",y="<<y<<endl;
    return 0;
}

```

五:

1. #include<iostream>

```

using namespace std;
int add(int a,int b);
int main()
{
    int x,y,sum;
    cout<<"Please input x and y:\n"<<endl;
    cin>>x>>y;
    sum=x+y;
    cout<<"sum="<<sum<<endl;
    return 0;
}
int add(int a,int b)
{
    a+=b;
    return a;
}

```

```

2.#include<iostream>
using namespace std;
#define PI 3.1415926f
int main()
{
    double a,C,S;
    cin>>a;
    C=2*PI*a;
    S=PI*a*a;
    cout<<"C="<<C<<"S="<<S<<endl;
    return 0;
}

```

```

3.#include<iostream>
using namespace std;
int main()
{
    int *s,a=0,b=0,i;
    s=new int[20];
    if(!s)
    {
        cout<<"allocation failure\n";
        return -1;
    }
    for( i=0;i<20;i++)
    {
        cin>>s[i];
    }
}

```

```

    if(s[i]>0)
    {
        a++;
    }
    if(s[i]<0)
    {
        b++;
    }
}
cout<<"正数为"<<a<<endl;
cout<<"负数为"<<b<<endl;
delete[]s;
return 0;
}

```

```

4.#include<iostream>
using namespace std;
float checkAgeScore(int age, float score)
{
    if ((age < 16) || (age > 25))
        throw age;
    if ((score < 1) || (score > 5))
        throw score;
    if (score == 5)
        cout << "该同学的百分制成绩为 90~100" << endl;
    if (score == 4)
        cout << "该同学的百分制成绩为 80~90" << endl;
    if (score == 3)
        cout << "该同学的百分之成绩为 70~80" << endl;
    if (score == 2)
        cout << "该同学的百分之成绩为 60~70" << endl;
    if (score == 1)
        cout << "该同学的百分之成绩为 50~60" << endl;
    if (score == 0)
        cout << "该同学的百分之成绩为 50 以下" << endl;
    return score;
}

int main()
{
    float checkAgeScore(int age, float score);
    string a;
    int b;
    float c;
    cin >> a >> b >> c;
}

```



```
try
{
    checkAgeScore(b, c);
}
catch (int)
{
    cout << "该同学的年龄为: " << b << endl;}
catch (float)
{
    cout << "该同学的分数为: " << c << endl;
}
cout << "该同学的年龄为: " << b << endl;
cout << "该同学的成绩为: " << c << endl;
}
```

④：根据实际撰写内容自行拓展页面，作业内容尾部尽量不要留有空白