```c
/*Smart Pointers*/
#include<stdio.h>
#include<stdlib.h>
int main(){
int a=5;

printf("addr of a = %u\t val of a = %d \n",&a,a);

int *u=&a;
int *v=u;
int **w=&v;
int ***x=&w;
int ****y=&x;
int *****z=&y;

printf("val of v = %u \n",v);
printf("val of *v  = %d \n",*v);
printf("val of w  = %d \n",w);
printf("val of *w  = %d \n",*w);
printf("val of **w  = %d \n",**w);
printf("val of x  = %d \n",x);
printf("val of *x  = %d \n",*x);
printf("val of **x  = %d \n",**x);
printf("val of ***x  = %d \n",***x);
printf("val of y  = %d \n",y);
printf("val of *y  = %d \n",*y);
printf("val of **y  = %d \n",**y);
printf("val of ***y  = %d \n",***y);
printf("val of ****y  = %d \n",****y);
printf("val of z  = %d \n",z);
printf("val of *z  = %d \n",*z);
printf("val of **z  = %d \n",**z);
printf("val of ***z  = %d \n",***z);
printf("val of ****z  = %d \n",****z);
printf("val of *****z  = %d \n",*****z);
return 0;
}
```

```
root@server0025:~/programs/c# gcc -o pointers pointers.c && ./pointers
addr of a = 1903132220   val of a = 5
val of v = 1903132220
val of *v  = 5
val of w  = 1903132208
val of *w  = 1903132220
val of **w  = 5
val of x  = 1903132200
val of *x  = 1903132208
val of **x  = 1903132220
val of ***x  = 5
val of y  = 1903132192
val of *y  = 1903132200
val of **y  = 1903132208
val of ***y  = 1903132220
val of ****y  = 5
val of z  = 1903132184
val of *z  = 1903132192
val of **z  = 1903132200
val of ***z  = 1903132208
val of ****z  = 1903132220
val of *****z  = 5
root@server0025:~/programs/c#
```