// Structure Types - Walkthrough

// struct\_walk.c

#include <stdio.h>

struct A

{

int x;

double r;

};

void foo(struct A\* c);

struct A goo(struct A d);

int main(void)

{

struct A a = {4, 6.67}, b;

foo(&a);

printf("00%d.%.3lf.111\n", a.x, a.r);

b = goo(a);

printf("00%d.%.3lf.112\n", a.x, a.r);

printf("%d.%.3lf.113\n", b.x, b.r);

}

void foo(struct A\* c)

{

int i;

i = c->x;

c->x = c->r;

c->r = c->x % i + 202.134;

}

struct A goo(struct A d)

{

struct A e;

d.x = d.r - 62;

e = d;

return e;

}

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| int | | | | void | | struct A | | | |
| main() | | | | foo() | | goo() | | | |
| struct A | | struct A | | struct A\* |  | struct A | | struct A | |
| a | | b | | c |  | d | | e | |
| 1000 | | 100C | | 1018 | 101C | 1020 | | 102C | |
| int | double | int | double |  | int | int | double | int | double |
| x | r | x | r |  | i | x | r | x | r |
| 4 | 6.67 | 142 | 204.134 | 1000 | 4 | 6 | 204.134 | 142 | 204.134 |
| 6 | 204.134 |  |  | 1000 |  | 142 |  |  |  |
|  |  |  |  | 1000 |  |  |  |  |  |
|  |  |  |  | 1000 |  |  |  |  |  |
|  |  |  |  | 1000 |  |  |  |  |  |

Output:

006.204.134.111

006.204.134.112

142.204.134.113