```
#include <stdlib.h>
#include <stdio.h>

#include "exception.h"
#include "memory.h"

#define K 1024
#define MEGA (K*K)

DEFINE_EXCEPTION(e1);
DEFINE_EXCEPTION(e2);

static void loop();
static void f1(int);


static void
loop(void)
{
    int i = 0;

    for(;;)
    {
        printf("loop : %d\n", i);
        HANDLE(e1, f1(i));
        if (exception_raised())
            printf("Exception e1 received in loop\n");
        i++;
    }
}
```

```
static void
f1(int i)
{
    switch (i)
    {
      case 0:
      case 2:
        return;

      case 1:
        RAISE(e1);

      case 3:
        RAISE(e2);
    }
}

int
main(void)
{
    HANDLE(any, loop());
    if (exception_raised())
        printf("Exception received in main\n");

    memory_alloc(1000*MEGA);

    return EXIT_SUCCESS;
}

/*
```

```
loop : 0
loop : 1
Exception e1 received in loop
loop : 2
loop : 3
Exception received in main
Uncaught exception <memory_default> raised from "memory.c:18"

*/
```