

## **Program:-Implementation of WHOIS application using Socket Programming**

### **Source Program-** **whois.c**

```
#include <sys/types.h>
#include <sys/socket.h>
#include <netinet/in.h>
#include <stdio.h>
#include <netdb.h>

#define      NICHOST      "whois.pir.org"

main(argc, argv)
    int argc;
    char *argv[];
{
    int s;
    register FILE *sfi, *sfo;
    register int c;
    char *host = NICHOST;
    struct sockaddr_in sin;
    struct hostent *hp;
    struct servent *sp;
    argc--, argv++;
    if (argc > 2 && strcmp(*argv, "-h") == 0) {
        argv++, argc--;
        host = *argv++;
        argc--;
    }

    if (argc != 1) {
        fprintf(stderr, "usage: whois name\n");
        exit(1);
    }
    hp = gethostbyname(host);
    if (hp == NULL) {
        fprintf(stderr, "whois: ");
        perror(host);
        exit(1);
    }
    host = hp->h_name;
    s = socket(hp->h_addrtype, SOCK_STREAM, 0);
    if (s < 0) {
        perror("whois: socket");
        exit(2);
    }
    bzero((caddr_t)&sin, sizeof (sin));
    sin.sin_family = hp->h_addrtype;
```

```

if (bind(s, &sin, sizeof (sin)) < 0) {

perror("whois: bind");
    exit(3);
}
bcopy(hp->h_addr, &sin.sin_addr, hp->h_length);
sp = getservbyname("whois", "tcp");
if (sp == NULL) {
    fprintf(stderr, "whois: whois/tcp: unknown service\n");
    exit(4);
}
sin.sin_port = sp->s_port;
if (connect(s, &sin, sizeof (sin)) < 0) {
    perror("whois: connect");
    exit(5);
}
sfi = fdopen(s, "r");
sfo = fdopen(s, "w");
if (sfi == NULL || sfo == NULL) {
    perror("fdopen");
    close(s);
    exit(1);
}
fprintf(sfo, "%s\r\n", *argv);
fflush(sfo);
while ((c =getc(sfi)) != EOF)
    putchar(c);
exit(0);
}

```

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### **Output of Program:-**

#### **Compilation of Source Code:**

scoe@ubuntu:~\$ **cd Documents**

scoe@ubuntu:~/Documents\$ **su**

Password:

root@ubuntu:/home/scoe/Documents# **gcc -g whois.c -o whois**

#### **Execution of Source Code:**

scoe@ubuntu:~/Documents\$ **./whois wikipedia.org**

Domain Name:WIKIPEDIA.ORG

Domain ID: D51687756-LROR

Creation Date: 2001-01-13T00:12:14Z

Updated Date: 2012-05-09T00:25:29Z

Registry Expiry Date: 2016-01-13T00:12:14Z

Sponsoring Registrar:MarkMonitor Inc. (R37-LROR)

Sponsoring Registrar IANA ID: 292

WHOIS Server:  
Referral URL:  
Domain Status: clientDeleteProhibited  
Domain Status: clientTransferProhibited  
Domain Status: clientUpdateProhibited  
Registrant ID:mmr-116560  
Registrant Name:Domain Admin  
Registrant Organization:Wikimedia Foundation, Inc.  
Registrant Street: 149 New Montgomery Street  
Registrant City:San Francisco  
Registrant State/Province:CA  
Registrant Postal Code:94105  
Registrant Country:US  
Registrant Phone:+1.4158396885  
Registrant Phone Ext:  
Registrant Fax: +1.4158820495  
Registrant Fax Ext:  
Registrant Email:dns-admin@wikimedia.org  
Admin ID:mmr-116560  
Admin Name:Domain Admin  
Admin Organization:Wikimedia Foundation, Inc.  
Admin Street: 149 New Montgomery Street  
Admin City:San Francisco  
Admin State/Province:CA  
Admin Postal Code:94105  
Admin Country:US  
Admin Phone:+1.4158396885  
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Tech Country:US  
Tech Phone:+1.4158396885  
Tech Phone Ext:  
Tech Fax: +1.4158820495  
Tech Fax Ext:  
Tech Email:dns-admin@wikimedia.org  
Name Server:NS0.WIKIMEDIA.ORG  
Name Server:NS1.WIKIMEDIA.ORG  
Name Server:NS2.WIKIMEDIA.ORG  
Name Server:  
Name Server:  
Name Server:

Name Server:  
Name Server:  
Name Server:  
Name Server:  
Name Server:  
Name Server:  
Name Server:  
DNSSEC:Unsigned

Access to Public Interest Registry WHOIS information is provided to assist persons in determining the contents of a domain name registration record in the Public Interest Registry registry database. The data in this record is provided by Public Interest Registry for informational purposes only, and Public Interest Registry does not guarantee its accuracy. This service is intended only for query-based access. You agree that you will use this data only for lawful purposes and that, under no circumstances will you use this data to (a) allow, enable, or otherwise support the transmission by e-mail, telephone, or facsimile of mass unsolicited, commercial advertising or solicitations to entities other than the data recipient's own existing customers; or (b) enable high volume, automated, electronic processes that send queries or data to the systems of Registry Operator, a Registrar, or Afilias except as reasonably necessary to register domain names or modify existing registrations. All rights reserved. Public Interest Registry reserves the right to modify these terms at any time. By submitting this query, you agree to abide by this policy.

scoe@ubuntu:~/Documents\$