PROGRAM:-

#include <stdio.h>

#include <stdlib.h>

#include <string.h>

#include <time.h>

#include <unistd.h>

#include <arpa/inet.h>

#define PORT 5000

#define BUFFER\_SIZE 1024

void getCurrentTime(char \*buffer) {

time\_t rawtime;

struct tm \*timeinfo;

time(&rawtime);

timeinfo = localtime(&rawtime);

strftime(buffer, BUFFER\_SIZE, "%Y-%m-%d %H:%M:%S", timeinfo);

}

int main() {

int server\_fd, new\_socket;

struct sockaddr\_in address;

int addrlen = sizeof(address);

char timeBuffer[BUFFER\_SIZE];

if ((server\_fd = socket(AF\_INET, SOCK\_STREAM, 0)) == 0) {

perror("Socket failed");

exit(EXIT\_FAILURE);

}

address.sin\_family = AF\_INET;

address.sin\_addr.s\_addr = INADDR\_ANY;

address.sin\_port = htons(PORT);

if (bind(server\_fd, (struct sockaddr \*)&address, sizeof(address)) < 0) {

perror("Bind failed");

exit(EXIT\_FAILURE);

}

if (listen(server\_fd, 3) < 0) {

perror("Listen failed");

exit(EXIT\_FAILURE);

}

printf("Time Server running on port %d\n", PORT);

while (1) {

if ((new\_socket = accept(server\_fd, (struct sockaddr \*)&address, (socklen\_t \*)&addrlen)) < 0) {

perror("Accept failed");

exit(EXIT\_FAILURE);

}

getCurrentTime(timeBuffer);

send(new\_socket, timeBuffer, strlen(timeBuffer), 0);

printf("Sent time: %s\n", timeBuffer);

close(new\_socket);

}

return 0;

}

OUTPUT:-

Time Server is running on port 5000

Client connected: 127.0.0.1

Sent time: 2025-03-01 12:34:56