SERVER CODE :

```
        #include <stdio.h>
#include <stdlib.h>
#include <string.h>
#include <unistd.h>
#include <arpa/inet.h>
#include <dirent.h>
#include <sys/socket.h>

#define PORT 8080
#define BUFFER_SIZE 1024

int main() {
   int server_fd, new_socket;
   struct sockaddr_in address;
   int addrlen = sizeof(address);
   char buffer[BUFFER_SIZE] = {0};

   server_fd = socket(AF_INET, SOCK_STREAM, 0);
   if (server_fd == -1) {
      perror("Socket creation 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("Server listening on port %d...\n", PORT);

   new_socket = accept(server_fd, (struct sockaddr *)&address, (socklen_t *)&addrlen);
   if (new_socket < 0) {
      perror("Accept failed");
      exit(EXIT_FAILURE);
   }

   printf("Client connected.\n");

   DIR *dir;
   struct dirent *ent;
   char fileList[4096] = "";
   dir = opendir(".");
   if (dir != NULL) {
      while ((ent = readdir(dir)) != NULL) {
         if (ent->d_type == DT_REG) {
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            strcat(fileList, ent->d_name);
            strcat(fileList, "\n");
          }
      }
      closedir(dir);
   }
   send(new_socket, fileList, strlen(fileList), 0);

   memset(buffer, 0, BUFFER_SIZE);
   read(new_socket, buffer, BUFFER_SIZE);
   printf("Client requested file: %s\n", buffer);

   FILE *fp = fopen(buffer, "rb");
   if (fp == NULL) {
      char *msg = "File not found.";
      send(new_socket, msg, strlen(msg), 0);
   } else {
      char data[BUFFER_SIZE];
      int n;
      while ((n = fread(data, 1, BUFFER_SIZE, fp)) > 0) {
         send(new_socket, data, n, 0);
      }
      fclose(fp);
      printf("File sent successfully.\n");
   }

   close(new_socket);
   close(server_fd);
   return 0;
}
```

CLIENT CODE :

```
       #include <stdio.h>
#include <stdlib.h>
#include <string.h>
#include <unistd.h>
#include <arpa/inet.h>

#define PORT 8080
#define BUFFER_SIZE 1024

int main() {
   int sock = 0;
   struct sockaddr_in serv_addr;
   char buffer[BUFFER_SIZE] = {0};

   sock = socket(AF_INET, SOCK_STREAM, 0);
   if (sock < 0) {
      perror("Socket creation error");
      exit(EXIT_FAILURE);
   }

   serv_addr.sin_family = AF_INET;
   serv_addr.sin_port = htons(PORT);
```

```
    if (inet_pton(AF_INET, "127.0.0.1", &serv_addr.sin_addr) <= 0) {
        printf("Invalid address\n");
        return -1;
    }

    if (connect(sock, (struct sockaddr *)&serv_addr, sizeof(serv_addr)) < 0) {
        perror("Connection failed");
        return -1;
    }

    printf("Connected to server.\n");

    read(sock, buffer, BUFFER_SIZE);
    printf("Files available on server:\n%s\n", buffer);

    char filename[100];
    printf("Enter file name to download: ");
    scanf("%s", filename);
    send(sock, filename, strlen(filename), 0);

    FILE *fp = fopen(filename, "wb");
    if (fp == NULL) {
        perror("File creation error");
        return -1;
    }

    int bytes;
    while ((bytes = read(sock, buffer, BUFFER_SIZE)) > 0) {
        fwrite(buffer, 1, bytes, fp);
    }

    printf("File downloaded successfully as %s\n", filename);
    fclose(fp);
    close(sock);
    return 0;
}
```