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In server.c

Reading and displaying Options.txt:

```
//previously use #define MAX 200, in the #include section of the file
FILE *filePointer ;
char data[100];
char options[100][100],opt[100][100];
filePointer = fopen("options.txt", "r") ; //Opening the Options.txt file
if(filePointer == NULL)
{
printf("File cant be opened");
exit(0);
}
else
{
int i=0;
while(fgets(data,100,filePointer)!=NULL) //reading the file line - by - line
{
strcpy(options[i],data); //storing it in the options array. and the first element in
the array contains the options that needs to be sent to the client
i++;
}
}
printf("Sending options to the client \n");
write(connfd,options[0],sizeof(options[0])); //sending the options to the client
printf("Waiting for the Client feedback \n");
```

In client.c

Option 1: Displaying the records

```
printf("Enter one option\n 1. Display Records \n 2. Exit \n");
        int sel=0;
        scanf("%d",&sel);
        char sel_opt[100],cat[10][200],rat[5][50], stock[2][50];
        if(sel == 1){
            strcpy(sel_opt,"1");
        } else{
            strcpy(sel_opt,"2");
        }

        write(sockfd, sel_opt,sizeof(sel_opt));
        read(sockfd,cat,sizeof(cat));
        for(int i = 0 ; i<10;i++){
            printf("%d. %s \n",i+1, cat[i]);
        }                    //
        char fie[703][1000];
        read(sockfd,fie,sizeof(fie));
        if(sel == 1){

        //for(int i =0 ; i<10;i++)
          printf("%s \n",cat[i]);



        char cat_opt[100];
        printf("\n please enter one option");
        scanf("%s",cat_opt);
        write(sockfd, cat_opt, sizeof(cat_opt));
```

```
    //char fie[703][1000];
    //read(sockfd,fie,sizeof(fie));
    for(int k = 0; k<703;k++){
        printf("%s \n", fie[k]);
    }


    }
     if ((strncmp(buff, "exit", 2)) == 0) {
        printf("Client Exit...\n");
        exit(0);
    }



     while(1){
//Write user options
bzero(buffer, sizeof(buffer));
input[0] = '\0';
printf("Please select option:\n");
printf("1. Display the records\n");
printf("2. Save the records\n");
printf("3. Display the summary\n");
printf("4. Exit\n");
printf(">> ");
scanf("%s", input);
printf("\n");

//Send input to server
send(clientSock, input, strlen(input), 0);
```

```
//break if option 4
if(atoi(input) == 4)
    break;

//Wait for server response
memset(process_buff, 0 , sizeof(process_buff));
bzero(process_buff, sizeof(process_buff));
recv(clientSock, process_buff, 4000, 0);
printf("%s\n", process_buff);

//Go into option 1 if chosen
    //input choice
char record[100];
printf("Please select a record: \n");
printf(">> ");
scanf(" %[^\n]%*c", record);

    //send choice to server
send(clientSock, record, strlen(record), 0);

    //recieve summary and display it
char arr[200][200];
if( recv(clientSock, arr, sizeof(sizeof(char) * 200) * 200, 0) < 0){
    return 1;
 }
  const char s[4] = ",";
if(atoi(input) == 1){
        for(int i=0;i<200;i++){
        if(strlen(arr[i]) !=0){
            char* token = strtok(arr[i], s);
            int j=1;
            //printf("===> %d \n",flag);
            while(token != 0){
                if(j== flag){
                    token = strtok(0,s);
                }
                    printf(" %s,",token);
                    token = strtok(0,s);
                    j++;

        }
        printf("\n");
        printf("\n");

      }
      }
```

In server.c

```
 write(connfd,column_names,sizeof(column_names));
            printf("Waiting for column options\n");
            read(connfd, column_option, sizeof(column_option));
            printf("%s \n",column_option);
            if((strcmp(column_option,"book category")==0)||(strcmp(column_option,"book")==0)){
                printf("---> %s\n",column_option);
                char category[10][200]
    ={"Poetry","Fiction","Music","Politics","Travel","Romance","Children","Nonfiction","Health","Religion"};
                read(connfd, cli_opt, sizeof(cli_opt));
                //printf("-=-=>\n %s ",cli_opt);



                write(connfd, category, sizeof(category));
                printf("+P %s",cli_opt);
                //sleep(500);
                read(connfd, cli_opt, sizeof(cli_opt));
                printf("-=-=>\n %s ",cli_opt);
                write(connfd,file_contents,sizeof(file_contents));
                for(int k= 0 ; k<703;k++){
                    printf("%s", file_contents[k]);
                }




            } else if((strcmp(column_option,"star rating")==0)||(strcmp(column_option,"star")==0)){
                //printf("%s\n",column_option);
                char rating[5][50] ={"One","Two","Three","Four","Five"};
                read(connfd, cli_opt, sizeof(cli_opt));
                write(connfd, rating, sizeof(rating));
                //write(connfd,file_contents,sizeof(file_contents));
            }else if(strcmp(column_option,"stock")==0){
                //printf("%s",column_option);
                //printf("%s\n",column_option);
                char stock[2][50] ={"In-stock","Out-of-stock"};
                read(connfd, cli_opt, sizeof(cli_opt));
                write(connfd, stock, sizeof(stock));
                //write(connfd,file_contents,sizeof(file_contents));
            }else{
                printf("Hello world \n");
            }

            //write(connfd, file_contents, sizeof(file_contents));

            //fp = fopen("bookInfo.txt","r");



            }else if(strcmp(buff,"amazonBestsellers.txt")==0){
            char column_names[50] = "User rating, Year, Genre";
            char column_option[100];
            write(connfd,column_names,sizeof(column_names));
            printf("Waiting for column options\n");
            read(connfd, column_option, sizeof(column_option));
            printf("%s \n",column_option);
            if((strcmp(column_option,"user rating")==0)||(strcmp(column_option,"user")==0)){
                printf("%s",column_option);
            } else if(strcmp(column_option,"year")==0){
                printf("%s",column_option);
            }else if(strcmp(column_option,"genre")){
                printf("%s",column_option);
            }else{
                printf("Hello world \n");
```

```
                    }
}else{
printf("option Not Available");


}
```