

E:\to do list.c

```
1 // C program for the above approach
2 #include <stdio.h>
3 #include <stdlib.h>
4
5 // Renaming structure to avoid the
6 // repetitive use of struct keyword
7 typedef struct ToDo todo;
8
9 // Declaration of structure
10 struct ToDo {
11     // char array as data part
12     char buffer[101];
13
14     // Pointer part to access addresses
15     todo* next;
16
17     // Count variable for counting
18     // the number of nodes
19     int count;
20 };
21
22 // Declare start pointer as null in
23 // the beginning
24 todo* start = NULL;
25
26 // Driver Code
27 int main()
28 {
29     int choice;
30     interface();
31
32     while (1) {
33
34         // Change console color and
35         // text color
36         system("Color 3F");
37
38         // Clear the console
39         system("cls");
40
41         printf("1. To see your ToDo list\n");
42         printf("2. To create new ToDo\n");
43         printf("3. To delete your ToDo\n");
44         printf("4. Exit");
45         printf("\n\nEnter your choice\t:\t");
46
47         // Choice from the user
48         scanf("%d", &choice);
49
50         switch (choice) {
51
52             // Calling functions defined
53             // below as per the user input
54             case 1:
```

localhost:50049/9f3abf0e-0aad-40f0-b8fe-ac8bc3e65d73/

```
111     system("pause");
112 }
113
114 // To view all the todos
115 void seetodo()
116 {
117     // Clearing the console
118     system("cls");
119
120     // Pointer to the node for traversal
121     todo* temp;
122
123     // temp is made to point the
124     // start of linked list
125     temp = start;
126
127     // Condition for empty linked list
128     if (start == NULL)
129         printf("\n\nEmpty ToDo \n\n");
130
131     // Traverse until last node
132     while (temp != NULL) {
133
134         // Print number of the node
135         printf("%d.", temp->count);
136
137         // Print data of the node
138         puts(temp->buffer);
139
140         // Clear output console
141         fflush(stdin);
142
143         // Going to next node
144         temp = temp->next;
145     }
146
147     printf("\n\n\n");
148     system("pause");
149 }
150
151 // Function to insert a node todo
152 void createtodo()
153 {
154     // Choose choice from user
155     char c;
156
157     // Pointers to node
158     todo *add, *temp;
159     system("cls");
160
161     // Infinite loop which will
162     // break if "n" is pressed
163     while (1) {
164
165         printf("\nWant to add new ToDo ??")
166             + " Press 'y' for Yes and 'n' "
```

```
167         + " for No :-)\n\t\t");
168     fflush(stdin);
169
170     // Input from user
171     scanf("%c", &c);
172
173     if (c == 'n')
174         break;
175     else {
176
177         // If start node is NULL
178         if (start == NULL) {
179
180             // Dynamically allocating
181             // memory to the newly
182             // created node
183             add = (todo*)calloc(1, sizeof(todo));
184
185             // Using add pointer to
186             // create linked list
187             start = add;
188             printf("\nType it.....\n");
189
190             // Input from user
191             fflush(stdin);
192             gets(add->buffer);
193
194             // As first input so
195             // count is 1
196             add->count = 1;
197
198             // As first node so
199             // start's next is NULL
200             start->next = NULL;
201         }
202         else {
203             temp = (todo*)calloc(1, sizeof(todo));
204             printf("\nType it.....\n");
205             fflush(stdin);
206             gets(temp->buffer);
207
208             // Insertion is at last
209             // so pointer part is NULL
210             temp->next = NULL;
211
212             // add is now pointing
213             // newly created node
214             add->next = temp;
215             add = add->next;
216         }
217
218         // Using the concept of
219         // insertion at the end,
220         // adding a todo
221
222         // Calling function to adjust
```

```
223         // the count variable
224         adjustcount();
225     }
226 }
227 }
228
229 // Function to delete the todo
230 void deletetodo()
231 {
232     system("cls");
233
234     // To get the numbering of the
235     // todo to be deleted
236     int x;
237
238     todo *del, *temp;
239     printf("\nEnter the ToDo's number"
240         + " that you want to remove.\n\t\t");
241
242     // Checking empty condition
243     if (start == NULL)
244         printf("\n\nThere is no ToDo"
245             + " for today :-)\n\n\n");
246     else {
247         scanf("%d", &x);
248
249         // del will point to start
250         del = start;
251
252         // temp will point to start's
253         // next so that traversal and
254         // deletion is achieved easily
255         temp = start->next;
256
257         // Running infinite loop so
258         // that user can delete and
259         // asked again for choice
260         while (1) {
261
262             // When the values matches,
263             // delete the node
264             if (del->count == x) {
265
266                 // When the node to be
267                 // deleted is first node
268                 start = start->next;
269
270                 // Deallocating the memory
271                 // of the deleted node
272                 free(del);
273
274                 // Adjusting the count when
275                 // node is deleted
276                 adjustcount();
277                 break;
278             }
```

```
279
280         if (temp->count == x) {
281             del->next = temp->next;
282             free(temp);
283             adjustcount();
284             break;
285         }
286         else {
287             del = temp;
288             temp = temp->next;
289         }
290     }
291 }
292 system("pause");
293 }
294
295 // Function to adjust the numbering
296 // of the nodes
297 void adjustcount()
298 {
299     // For traversal, using
300     // a node pointer
301     todo* temp;
302     int i = 1;
303     temp = start;
304
305     // Running loop until last node
306     // and numbering it one by one
307     while (temp != NULL) {
308         temp->count = i;
309         i++;
310         temp = temp->next;
311     }
312 }
313
```