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initSpace()

Fail

```
11⊖ void initSpace(cardCellContent** corner, int howManyCols)
12  {
13      for(int row = 0; row< howManyCols; row++)
14      {
15          for(int col = 0; col < howManyCols; col++)
16          {
17              cardCellContent* x = (cardCellContent*) malloc (sizeof(cardCellContent)); //reserve a cardCell on heap
18          }
19      }
20  }
21
```

Problems | Tasks | Console ⊠ | Properties
<terminated> (exit value: 0) HW2.exe [C/C++ Application] C:\Users\jhsu0\eclipse-workspace\HW2\Debug\HW2.exe (9/7/21, 9:58 PM)
```
!!!Hello World, let's do HW2!!!
starting testMakeLList
test make LList did pass.
testEnqueue did pass.
testprintHistory did pass.
testBoardInit did not pass
Not all tests passed; better luck next time
```

Pass

```
11⊖ void initSpace(cardCellContent** corner, int howManyCols)
12  {
13      for(int row = 0; row< howManyCols; row++)
14      {
15          for(int col = 0; col < howManyCols; col++)
16          {
17              cardCellContent* x = (cardCellContent*) malloc (sizeof(cardCellContent)); //reserve a cardCell on heap
18              x->row = 0;
19              x->col = 0;
20              x->matched = false;
21              //call rand
22              x->letter = 'A' + rand() % 26;
23              x->digit = '0' + rand() % 10;
24              cardCellContent**  thatCellP = corner + row*howManyCols + col;
25              *thatCellP = x; //put its address into bingo card space
26          }
27      }
28  }
29
```

Problems | Tasks | Console ⊠ | Properties
<terminated> (exit value: 0) HW2.exe [C/C++ Application] C:\Users\jhsu0\eclipse-workspace\HW2\Debug\HW2.exe (9/7/21, 10:10 PM)
```
!!!Hello World, let's do HW2!!!
starting testMakeLList
test make LList did pass.
testEnqueue did pass.
testprintHistory did pass.
testBoardInit did pass.
The tests all passed.
Found 2 arguments.
Number of calls is 600
after reading arguments
```

savePayload()

Fail

```
49 }
50⊖ void savePayload(LLNode* lp, Payload* mp)
51 {
52⊖ //   //if the list is empty, then make payP be mp
53 //   //else traverse the list,
54 //   //make a new list element
55 //   //put mp in that
56 //   //attach the new list element to the existing list
57 //   if(isEmpty(lp))
58 //   {
59 //       lp->payP = mp;
60 //   }
61 //   else
62 //   {
63 //       LLNode* temp = lp;
64 //       while(temp->next)
65 //       {
66 //           temp=(LLNode*)temp->next;
67 //       }
68 //       //now temp points to the last element
69 //
70 //       //make a new element, attach mp to it, wire up the new element
71 //       LLNode* newList = makeEmptyLinkedList();
72 //       newList->payP = mp;
73 //       temp->next = (struct LLNode*)newList;
74 //       newList->prev = (struct LLNode*) temp;
75 //   }
76 }
```

Problems Tasks Console ☒ Properties Debug

SystemsHW2 Debug [C/C++ Application]

```
!!!Hello World, let's do HW2!!!
starting testReadFile
starting testMakeLList
test make LList did not pass.
testEnqueue did not pass.
```

Pass

```
50⊖ void savePayload(LLNode* lp, Payload* mp)
51 {
52       //if the list is empty, then make payP be mp
53       //else traverse the list,
54       //make a new list element
55       //put mp in that
56       //attach the new list element to the existing list
57       if(isEmpty(lp))
58       {
59           lp->payP = mp;
60       }
61       else
62       {
63           LLNode* temp = lp;
64           while(temp->next)
65           {
66               temp=(LLNode*)temp->next;
67           }
68           //now temp points to the last element
69
70           //make a new element, attach mp to it, wire up the new element
71           LLNode* newList = makeEmptyLinkedList();
72           newList->payP = mp;
73           temp->next = (struct LLNode*)newList;
74           newList->prev = (struct LLNode*) temp;
75       }
76 }
```

Problems Tasks Console ⊠ Properties Debug
SystemsHW2 Debug [C/C++ Application]
!!!Hello World, let's do HW2!!!
starting testReadFile
starting testMakeLList
test make LList did pass.
testEnqueue did pass.

isWin()

Fail

```
49⊖ bool isWin(cardCellContent** corner, int howManyCols)
50 {
51     bool win = false;
52
53 |
54
55
56     return win;
57 }
58
59
60
61
62
63
```

Problems Tasks Console ⊠ Properties

<terminated> (exit value: 0) HW2.exe [C/C++ Application] C:\Users\jhsu0\eclipse-workspace\HW2\Debug\HW2

```
!!!Hello World, let's do HW2!!!
starting testMakeLList
test make LList did pass.
testEnqueue did pass.
testBoardInit did pass.
testIsWin did not pass
Not all tests passed; better luck next time
```

Pass

```
48
49⊖ bool isWin(cardCellContent** corner, int howManyCols)
50 {
51      bool win = false;
52
53      //ROW
54          for(int row = 0; row< howManyCols; row++)
55          {
56              int count=0;
57              for(int col = 0; col < howManyCols; col++)
58              {
59                  cardCellContent**  thatCellP = corner + row*howManyCols + col;
60                  bool matching = (*thatCellP)->matched;
61                  if(matching){
62                      count++;
63                  }
64                  if(count==5){
65                      win=true;
66                  }
67              }
68          }
69
70      //COLS
71          for(int col = 0; col< howManyCols; col++)
72          {
73              int count=0;
74              for(int row = 0; row < howManyCols; row=row+5)
75              {
76                  cardCellContent**  thatCellP = corner + row*howManyCols + col;
77                  bool matching = (*thatCellP)->matched;
78                  if(matching){
79                      count++;
80                  }
81                  if(count==5){
82                      win=true;
83                  }
84
85              }
86          }
87
88
89      //TOP LEFT BOTTOM RIGHT
90          for(int row = 0; row< howManyCols; row++)
91          {
92              int count=0;
93              int col=row;
94              cardCellContent**  thatCellP = corner + row*howManyCols + col;
95              bool matching = (*thatCellP)->matched;
96              if(matching){
97                  count++;
98              }
99              if(count==5){
```

Problems Tasks Console ⊠ Properties

\<terminated\> (exit value: 0) HW2.exe [C/C++ Application] C:\Users\jhsu0\eclipse-workspace\HW2\Debug\HW2.exe (9/7/21, 11:

```
!!!Hello World, let's do HW2!!!
starting testMakeLList
test make LList did pass.
testEnqueue did pass.
testBoardInit did pass.
testIsWin did pass
The tests all passed.
Found 2 arguments.
Number of calls is 600
after reading arguments
```

displaySpace()

Fail

```c
33 void displaySpace(cardCellContent** corner, int howManyCols)
34 {
35 //   for(int row = 0; row< howManyCols; row++)
36 //   {
37 //       for(int col = 0; col < howManyCols; col++)
38 //       {
39 //           cardCellContent**  thatCellP = corner + row*howManyCols + col;
40 //           char let = (*thatCellP)->letter;
41 //           char digit = (*thatCellP)->digit;
42 //           printf("|%c%c", let, digit);
43 //       }
44 //       printf("|\n");
45 //   }
46 }
47
48
49
50
```

Problems Tasks Console ⌧ Properties Debug

<terminated> (exit value: 0) SystemsHW2 Debug [C/C++ Application] C:\Users\jake1\OneDrive\Desktop\Algorithms 2223\SystemsHW2\Debug\SystemsHW2.exe (9/

```
test make LList did pass.
testEnqueue did pass.
History should be: C0 C1 C2 C3 C4
Calls = 5
Printing history
Combo 1 is: A0.
Combo 2 is: A1.
Combo 3 is: A2.
Combo 4 is: A3.
Combo 5, the winning combo, is: A4.
testprintHistory did pass.
testInitializeBoard did pass
Does it look right? (y/n):n
testDisplaySpace did not pass
```

Pass

```
32
33  void displaySpace(cardCellContent** corner, int howManyCols)
34  {
35      for(int row = 0; row< howManyCols; row++)
36      {
37          for(int col = 0; col < howManyCols; col++)
38          {
39              cardCellContent**  thatCellP = corner + row*howManyCols + col;
40              char let = (*thatCellP)->letter;
41              char digit = (*thatCellP)->digit;
42              printf("|%c%c", let, digit);
43          }
44          printf("|\n");
45      }
46  }
47
48
49
50
```

Problems ⬜ Tasks 🖥 Console ⬚ 🔲 Properties ✴ Debug

<terminated> (exit value: 0) SystemsHW2 Debug [C/C++ Application] C:\Users\jake1\OneDrive\Desktop\Algorithms 2223\SystemsHW2\Debug\SystemsHW2.e

```
Combo 1 is: A0.
Combo 2 is: A1.
Combo 3 is: A2.
Combo 4 is: A3.
Combo 5, the winning combo, is: A4.
testprintHistory did pass.
testInitializeBoard did pass
|A0|A0|A0|A0|A0|
|A0|A0|A0|A0|A0|
|A0|A0|A0|A0|A0|
|A0|A0|A0|A0|A0|
|A0|A0|A0|A0|A0|
Does it look right? (y/n):y
testDisplaySpace did pass
```

printCalls()

Fail

```
194 void printCalls(LLNode* hp)
195 {
196 //  puts("\nPrinting history");
197 //  if(hp->payP ==(Payload*)0)
198 //  {
199 //      puts("Empty list");
200 //  }
201 //  else
202 //  {
203 //      //traverse the list, printing as we go
204 //      int i = 1;
205 //      LLNode* temp = hp;
206 //      while(temp->next)
207 //      {
208 //          printf("Combo %d is: %c%c.\n", i,temp->payP->letter, temp->payP->num);
209 //          temp=(LLNode*)temp->next;
210 //          i++;
211 //      }
212 //       printf("Combo %d, the winning combo, is: %c%c.\n", i,temp->payP->letter, temp->payP->num);
213 //  }
214 }
215
216
```

Problems Tasks Console ⊠ Properties Debug
SystemsHW2 Debug [C/C++ Application]

```
starting testReadFile
starting testMakeLList
test make LList did pass.
testEnqueue did pass.
Do the calls look right? (y/n):n
testprintCalls did not pass
```

//

MORE BELOW

Pass

```
194 void printCalls(LLNode* hp)
195 {
196     puts("\nPrinting history");
197     if(hp->payP ==(Payload*)0)
198     {
199         puts("Empty list");
200     }
201     else
202     {
203         //traverse the list, printing as we go
204         int i = 1;
205         LLNode* temp = hp;
206         while(temp->next)
207         {
208             printf("Combo %d is: %c%c.\n", i,temp->payP->letter, temp->payP->num);
209             temp=(LLNode*)temp->next;
210             i++;
211         }
212          printf("Combo %d, the winning combo, is: %c%c.\n", i,temp->payP->letter, temp->payP->num);
213     }
214 }
215
216
217
218
219
220
```

Problems | Tasks | Console ☒ | Properties | Debug
SystemsHW2 Debug [C/C++ Application]

```
test make LList did pass.
testEnqueue did pass.

Printing history
Combo 1 is: A0.
Combo 2 is: A1.
Combo 3 is: A2.
Combo 4 is: A3.
Combo 5, the winning combo, is: A4.
Do the calls look right? (y/n):y
testprintCalls did pass
```