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1: //How take input and print 2D array//
2: #include<stdio.h>
3: int main()
4: {
5:     int a[10][10],row,col,size;
6:     scanf("%d",&size);
7:     for(row=0;row<size;row++)
8:     {
9:         for(col=0;col<size;col++)
10:        {
11:            scanf("%d",&a[row][col]);
12:        }
13:    }
14:    for(row=0;row<size;row++)
15:    {
16:        for(col=0;col<size;col++)
17:        {
18:            printf("%d",a[row][col]);
19:        }
20:        printf("\n");
21:    }
22:    return 0;
23: }
24:
25: Question----1
26:
27: #include<stdio.h>
28: int main()
29: {
30:     int a[10][10],b[10][10],row,col,size;
31:     scanf("%d",&size);
32:     for(row=0;row<size;row++)
33:     {
34:         for(col=0;col<size;col++)
35:         {
36:             scanf("%d",&a[row][col]);
37:         }
38:     }
39:     for(row=0;row<size;row++)
40:     {
41:         for(col=0;col<size;col++)
42:         {
43:             b[row][col]=a[row][col];
44:         }
45:         printf("\n");
46:     }
47:     for(row=0;row<size;row++)

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48:     {
49:         for(col=0;col<size;col++)
50:         {
51:             printf("%d",b[row][col]);
52:         }
53:         printf("\n");
54:     }
55:     return 0;
56: }
57:
58: Question----2
59:
60: #include<stdio.h>
61: int main()
62: {
63:     int a[10][10],b[10][10],c[10][10],row,col,Rsize,Csize;
64:     scanf("%d",&Rsize);
65:     scanf("%d",&Csize);
66:     for(row=0;row<Rsize;row++)
67:     {
68:         for(col=0;col<Csize;col++)
69:         {
70:             printf("enter the 1st array:----");
71:             scanf("%d",&a[row][col]);
72:         }
73:     }
74:     for(row=0;row<Rsize;row++)
75:     {
76:         for(col=0;col<Csize;col++)
77:         {
78:             printf("enter the 2nd array:---");
79:             scanf("%d",&b[row][col]);
80:         }
81:     }
82:     for(row=0;row<Rsize;row++)
83:     {
84:         for(col=0;col<Csize;col++)
85:         {
86:             c[row][col]=a[row][col]+b[row][col];
87:             printf("%d",c[row][col]);
88:         }
89:     }
90:     return 0;
91: }
92:
93: Question---4
94:

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95: #include<stdio.h>
96: int main()
97: {
98:     int a[10][10],row,col,Rsize,Csize,sum=0;
99:     scanf("%d",&Rsize);
100:    scanf("%d",&Csize);
101:    for(row=0;row<Rsize;row++)
102:    {
103:        for(col=0;col<Csize;col++)
104:        {
105:            scanf("%d",&a[row][col]);
106:        }
107:    }
108:    for(row=0;row<Rsize;row++)
109:    {
110:        sum=0;
111:        for(col=0;col<Csize;col++)
112:        {
113:            sum=sum+a[row][col];
114:        }
115:        printf("\n");
116:        printf("The Sum of Elements of a Rows in a Matrix = %d \n", s
117:    }
118:
119:    return 0;
120: }
121:
122: Question---5
123:
124: #include<stdio.h>
125: int main()
126: {
127:     int a[10][10],row,col,Rsize,Csize,sum=0;
128:     scanf("%d",&Rsize);
129:     scanf("%d",&Csize);
130:     for(row=0;row<Rsize;row++)
131:     {
132:         for(col=0;col<Csize;col++)
133:         {
134:             scanf("%d",&a[row][col]);
135:         }
136:     }
137:     for(row=0;row<Csize;row++)
138:     {
139:         sum=0;
140:         for(col=0;col<Rsize;col++)
141:         {

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142:         sum=sum+a[col][row];
143:     }
144:     printf("\n");
145:     printf("The Sum of Elements of a Columns in a Matrix =  %d \n"
146: )
147:
148:     return 0;
149: }
150:
151: Question---6
152:
153: #include<stdio.h>
154: int main()
155: {
156:     int a[10][10],row,col,Rsize,Csize,sum=0,c=0;
157:     scanf("%d",&Rsize);
158:     scanf("%d",&Csize);
159:     for(row=0;row<Rsize;row++)
160:     {
161:         for(col=0;col<Csize;col++)
162:         {
163:             scanf("%d",&a[row][col]);
164:         }
165:     }
166:     for(row=0;row<Rsize;row++)
167:     {
168:         sum=sum+a[row][row];
169:         c = c + a[row][Rsize - row - 1];
170:     }
171:     printf("\n");
172:     printf("The Sum of Elements of a 1st matrix in a Matrix =  %d \n",
173:     printf("The Sum of Elements of a 2nd matrix in a Matrix =  %d \n",
174:     return 0;
175: }
176:
177: Question---7
178:
179: #include<stdio.h>
180: int main()
181: {
182:     int r, c, sum = 0,i,j,arr[100][100];
183:     printf("Enter the order of the matrix : ");
184:     scanf("%d %d",&r,&c);
185:     printf("Input the matrix elements:---");
186:     for(i = 0; i < r; i++)
187:     {
188:         for(j = 0; j < c; j++)

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189:         scanf("%d",&arr[i][j]);
190:     }
191:     for(i = 0; i < r; i++)
192:     {
193:         for(j = 0; j < c; j++)
194:         {
195:             if((i==0) || (j==0) || (i==r-1) || (j==c-1))
196:             {
197:                 sum = sum + arr[i][j];
198:             }
199:             else
200:                 printf(" ");
201:         }
202:         printf("\n");
203:     }
204:     printf("Sum of boundary is %d", sum);
205: }
206:
207: //Question---8
208:
209: #include<stdio.h>
210: int main()
211: {
212:     int r, c, sum = 0,i,j,arr[100][100];
213:     printf("Enter the order of the matrix : ");
214:     scanf("%d %d",&r,&c);
215:     printf("Input the matrix elements:---");
216:     for(i = 0; i < r; i++)
217:     {
218:         for(j = 0; j < c; j++)
219:             scanf("%d",&arr[i][j]);
220:     }
221:     printf("After taking values:---");
222:     for(i = 0; i < r; i++)
223:     {
224:         for(j = 0; j < c; j++)
225:             printf("%d ",arr[i][j]);
226:     }
227:     printf(",, After making spiral way print:----");
228:     for(i = 0; i < r; i++)
229:     {
230:
231:         if(i%2==0)
232:         {
233:             for (j = 0; j <c; j++)
234:                 printf("%d ",arr[i][j]);
235:         }

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236:         else
237:         {
238:             for(j=c-1;j>=0;j--)
239:             {
240:                 printf("%d ",arr[i][j]);
241:             }
242:         }
243:     }
244: }
245:
246: //Question---9
247:
248: #include<stdio.h>
249: int main() {
250:     int a[10][10],row,col,i,j;
251:     scanf("%d %d",&i,&j);
252:     for(row=0;row<i;row++){
253:         for(col=0;col<j;col++){
254:             scanf("%d",&a[row][col]);
255:         }
256:     }
257:     for(row=0;row<i;row++){
258:         for(col=0;col<j;col++){
259:             if(col%2==0){
260:                 printf("%d ",a[row][col]);
261:             }
262:             else{
263:                 printf("%d ",a[i-1-row][col]);
264:             }
265:         }
266:         printf("\n");
267:     }
268:
269:     return 0;
270: }
271:
272: //Question---2
273:
274: #include <stdio.h>
275:
276: int main()
277: {
278:     int m, n, p, q, c, d, k, sum = 0;
279:     int first[10][10], second[10][10], arr[10][10];
280:
281:     printf("Enter number of rows and columns of first matrix\n");
282:     scanf("%d%d", &m, &n);

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283: printf("Enter elements of first matrix\n");
284:
285: for (c = 0; c < m; c++)
286:     for (d = 0; d < n; d++)
287:         scanf("%d", &first[c][d]);
288:
289: printf("Enter number of rows and columns of second matrix\n");
290: scanf("%d%d", &p, &q);
291:
292: if (n != p)
293:     printf("The multiplication isn't possible.\n");
294: else
295: {
296:     printf("Enter elements of second matrix\n");
297:
298:     for (c = 0; c < p; c++)
299:         for (d = 0; d < q; d++)
300:             scanf("%d", &second[c][d]);
301:
302:     for (c = 0; c < m; c++) {
303:         for (d = 0; d < q; d++) {
304:             for (k = 0; k < p; k++) {
305:                 sum = sum + first[c][k]*second[k][d];
306:             }
307:
308:             arr[c][d] = sum;
309:             sum = 0;
310:         }
311:     }
312:     printf("Product of the matrices:\n");
313:
314:     for (c = 0; c < m; c++) {
315:         for (d = 0; d < q; d++)
316:             printf("%d\t", arr[c][d]);
317:
318:         printf("\n");
319:     }
320: }
321: return 0;
322: }

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