r	b	{r, b, g, y}	{r, b, g, y}
{r, b, g, y}	g	{r, b, g, y}	r
b	r	y	{r, b, g, y}
g	{r, b, g, y}	r	b

Figure CSP-1.

A 4x4 board, top left coordinate is (0,0) through bottom right (3,3),
each entry to be filled in with a color from {r, b, g, y},
such that entries in each row and each column is unique
The input board is partially filled in. Empty entries are shown with {r, b, g, y}

Solution: ?

r	b	{r, g}	{b, y}
y	g	{r, b}	{r, b}
b	r	y	{g}
{r, g}	{y}	{r, b}	{r, b}

Figure CSP-2.

A 4x4 board, top left coordinate is (0,0) through bottom right (3,3),
each entry to be filled in with a color from {r, b, g, y},
such that entries in each row and each column is unique.

Run the Backtracking algorithm. When does the first instantiation of an entry fails?
Ans: ?

Run the Forward Checking (FC) algorithm.
FC selects of (0,0):r as the first choice to check for all constraints related to this node.
Which domain(s) is/are reduced?
Ans: ?

r	b	{r, b, g, y}	{r, b, g, y}
{y}	g	{r, b}	{r, b}
b	r	y	{r, b, g, y}
g	{y}	{r, b}	{r, b}

Figure CSP-3.

A 4x4 board, top left coordinate is (0,0) through bottom right (3,3) ,
each entry to be filled in with a color from {r, b, g, y},
such that entries in each row and each column is unique.
The input board is partially filled in.

Arc-consistent Network after removing unsupported domain values: ?