

```

195 private void InsertPatterns()
196 {
197     // Insert finder patterns
198     // 0 = black, 1 = white
199
200     int pattern1_size = finder_pattern.pattern1.GetUpperBound(0) + 1; // width, and height are equal
201     for (int y = 0; y < pattern1_size; y++)
202     {
203         for (int x = 0; x < pattern1_size; x++)
204         {
205             // left upper corner
206             qr_code[y, x] = finder_pattern.pattern1[y, x];
207             qr_code[pattern1_size, x] = 0; // add a white stripe to the lower end
208
209             // right upper corner
210             qr_code[y, size - x - 2] = finder_pattern.pattern1[y, x];
211             qr_code[pattern1_size, size - x - 2] = 0; // add a white stripe to the lower end
212
213             // left lower corner
214             qr_code[size - y - 2, x] = finder_pattern.pattern1[y, x];
215             qr_code[size - pattern1_size - 2, x] = 0; // add a white stripe to the upper end
216
217             qr_code[y, pattern1_size] = 0; // add a white stripe to the right side of the left upper pattern
218             qr_code[y, size - pattern1_size - 2] = 0; // add a white stripe to the left side of the right upper pattern
219             qr_code[size - y - 2, pattern1_size] = 0; // add a white stripe to the right side of the left lower pattern
220
221             qr_code[pattern1_size, pattern1_size] = 0;
222             qr_code[size - pattern1_size - 2, pattern1_size] = 0;
223             qr_code[pattern1_size, size - pattern1_size - 2] = 0;
224
225             // if the version is 2 or bigger, the qr-code expect another finder pattern (pattern2)
226             // 0 for the first one, 16 for the others
227             if (version >= 2)
228             {
229                 // TODO implement patterns for version 7 and higher
230                 if (version >= 7) throw new NotImplementedException("Version 7 or higher is not implemented!");
231
232                 int pattern2_size = finder_pattern.pattern2.GetUpperBound(0) + 1;
233                 (int, int) pattern2_pos = (size - 0, size - 10); // format: (y,x)
234                 for (int y = 0; y < pattern2_size; y++)
235                 {
236                     for (int x = 0; x < pattern2_size; x++)
237                     {
238                         qr_code[pattern2_pos.Item1 + y, pattern2_pos.Item2 + x] = finder_pattern.pattern2[y, x];
239                     }
240                 }
241             }
242         }
243     }
244 }

```

QR Code patterns

Author: Yannic

Reviewer: Christopher

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Examiner: Yannic

Img: ["https://github.com/Yan0sch/QRCodeGenerator](https://github.com/Yan0sch/QRCodeGenerator/blob/CodeSnippet)
 Src: [/blob/CodeSnippet](https://github.com/Yan0sch/QRCodeGenerator/blob/CodeSnippet/QRCodeGenerator_CodeSnippet.png?raw=true)
[/QRCodeGenerator_CodeSnippet.png?raw=true"](https://github.com/Yan0sch/QRCodeGenerator/blob/CodeSnippet/QRCodeGenerator_CodeSnippet.png?raw=true)

Looking at the code snippet as whole you can see that it was written in C#.

The code is used to insert the finder patterns of a QR code into a matrix.

In the first line, you can see that it is a private function called "InsertPatterns" with no Parameters and no return value. The function is part of a class. In the next lines are some comments. Then there are two for loops nested into each other and it seems like they put finder patterns into a QR code matrix and add some white stripes to the left, right, bottom, and top of those patterns if necessary. In the last part, the code checks if the version of the QR code is bigger than two and adds another finder pattern with two nested for loops. But version 7 or higher is not implemented.

Maybe you could add more accurate comments about what the function is doing in the first line. You also implement the finder patterns for version 7 and higher which is also written down as TODO. Maybe you could add more exactly comment about for example why is there "size - y - 2" so where comes this 2 from.