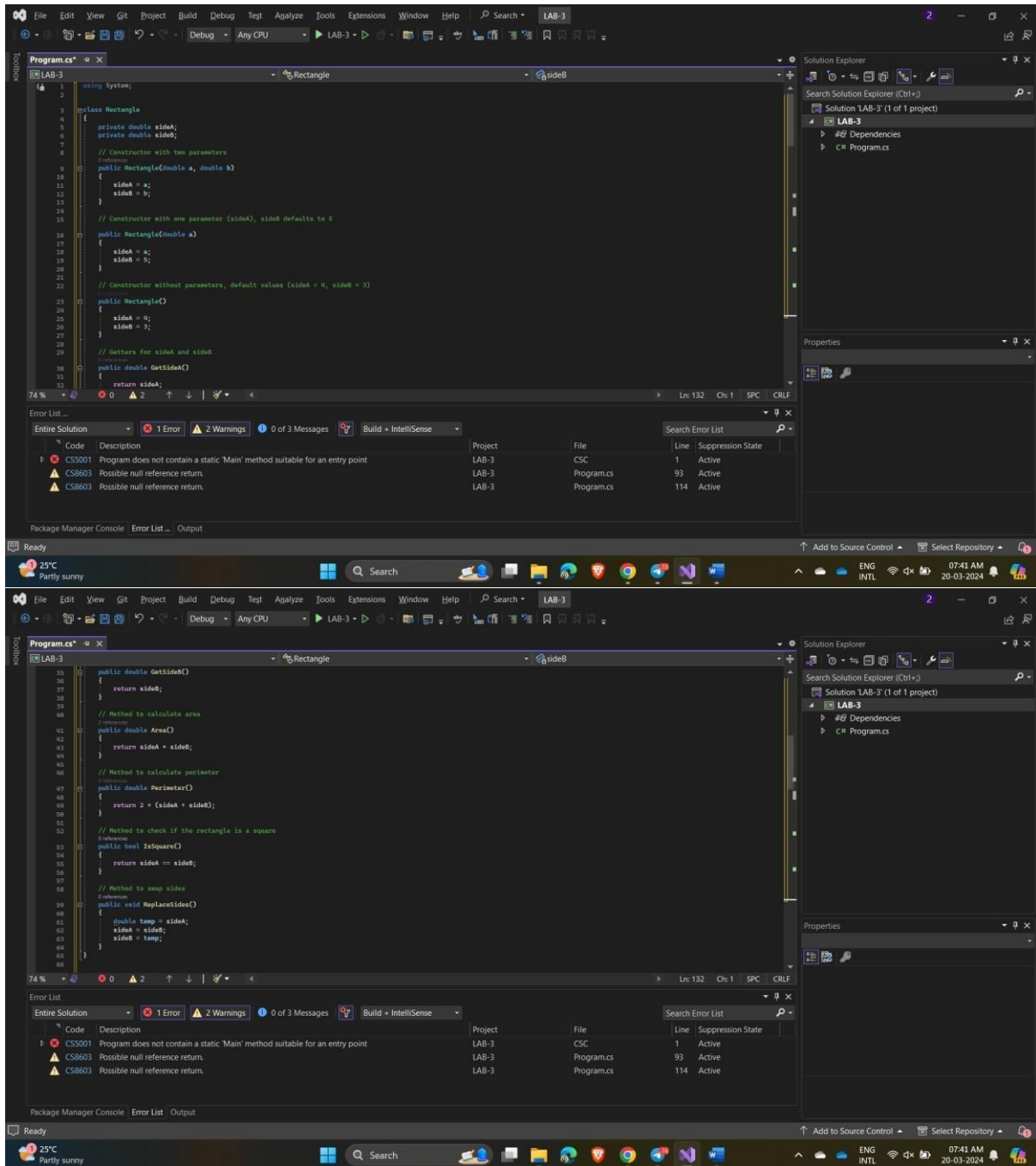
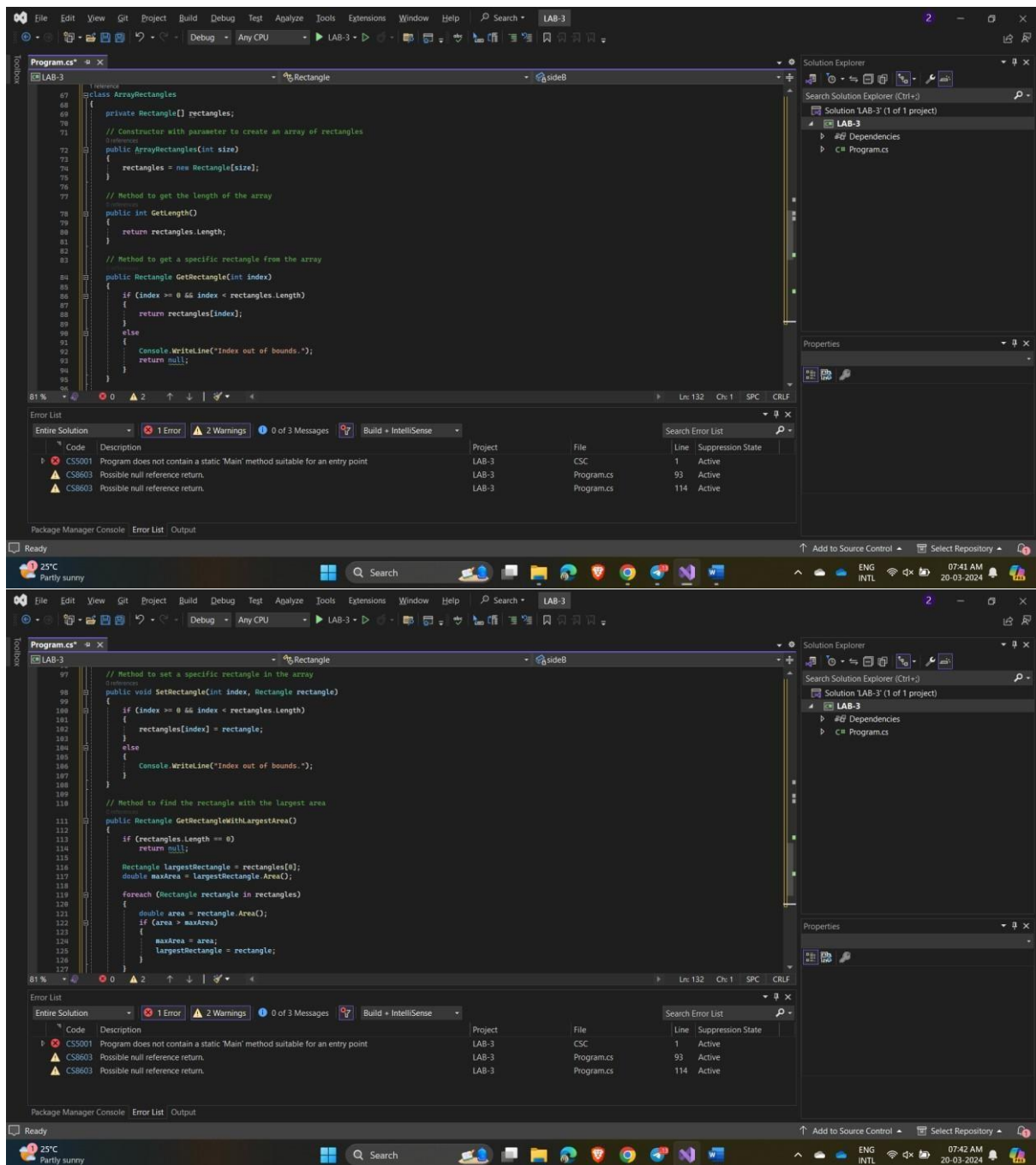


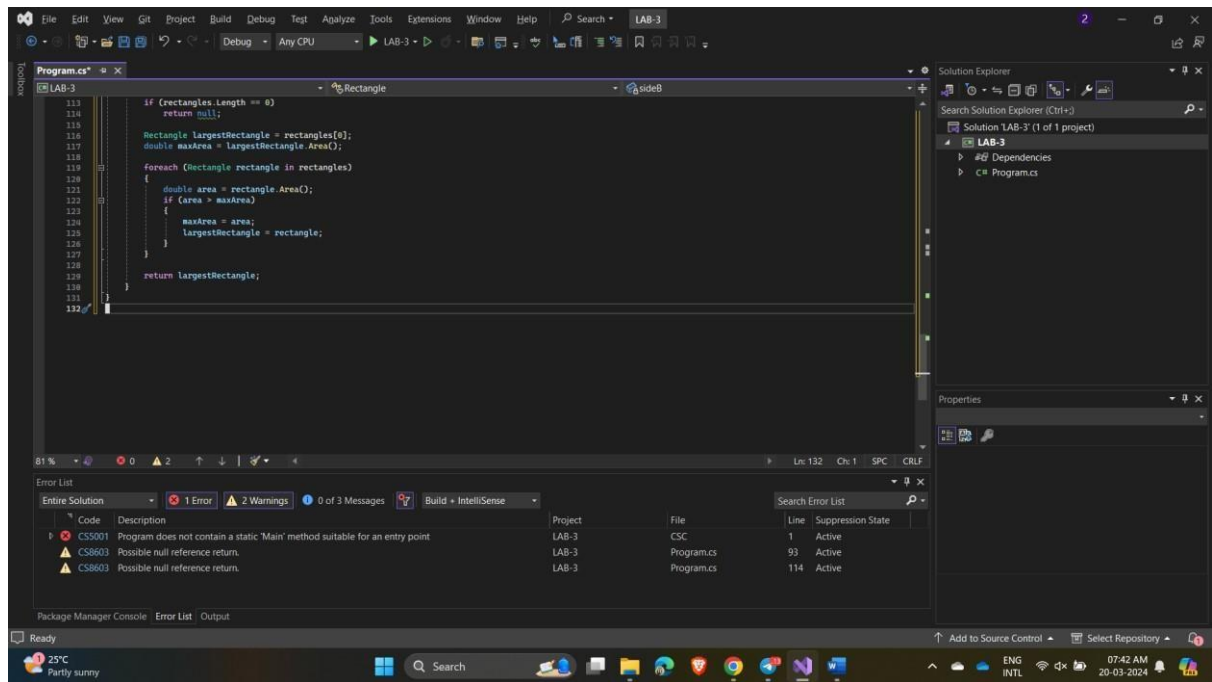
2100090166

J.KASIAH

LAB – 3.1







LAB – 3.2

Visual Studio interface showing the implementation of the `AddRectangle` method in the `ArrayRectangles` class. The code defines a `Rectangle` struct and an `ArrayRectangles` class with methods for adding rectangles to an array.

```
132 //
133 //
134 using System;
135 using System.Drawing;
136
137
138
139 // References
140
141 private Rectangle[] rectangleArray;
142
143 // Constructor creating an empty array of rectangles with length n
144 // References
145 public ArrayRectangles(int n)
146 {
147     rectangleArray = new Rectangle[n];
148 }
149
150 // Constructor that receives an arbitrary amount of objects of type Rectangle or an array of objects of type Rectangle
151 // References
152 public ArrayRectangles(params Rectangle[] rectangles)
153 {
154     rectangleArray = rectangles;
155 }
156
157 // Method to add a rectangle to the array on the nearest free place
158 // Returns true if added successfully, false if there is no free space
159 // References
160 public bool AddRectangle(Rectangle rectangle)
161 {
162     for (int i = 0; i < rectangleArray.Length; i++)
163     {
164         if (rectangleArray[i] == null)
165         {
166             rectangleArray[i] = rectangle;
167             return true;
168         }
169     }
170     return false;
171 }
```

Output:

```
Show output from: Build
1F:\vloggie\LAB-3\LAB-3\Program.cs(198,49,198,58): error CS1061: 'Rectangle' does not contain a definition for 'Perimeter' and no accessible extension method 'Perimeter' acc
1F:\vloggie\LAB-3\LAB-3\Program.cs(202,50,202,59): error CS1061: 'Rectangle' does not contain a definition for 'Perimeter' and no accessible extension method 'Perimeter' acc
1F:\vloggie\LAB-3\LAB-3\Program.cs(219,27,219,35): error CS1061: 'Rectangle' does not contain a definition for 'IsSquare' and no accessible extension method 'IsSquare' acc
1Done building project "LAB-3.csproj" -- FAILED.
----- Build: 0 succeeded, 1 failed, 0 up-to-date, 0 skipped -----
----- Build completed at 07:43 AM and took 00.360 seconds -----
```

Visual Studio interface showing the implementation of the `NumberMaxArea` method in the `ArrayRectangles` class. The code defines a `Rectangle` struct and an `ArrayRectangles` class with methods for finding the rectangle with the maximum area.

```
182
183 {
184     rectangleArray[i] = rectangle;
185     return true;
186 }
187
188 return false;
189
190
191 // Method to get the order number (index) of the rectangle with the maximum area value
192 // References
193 public int NumberMaxArea()
194 {
195     if (rectangleArray.Length == 0)
196     {
197         throw new InvalidOperationException("Array is empty");
198     }
199
200     int maxIndex = 0;
201     double maxArea = rectangleArray[0].Area();
202
203     for (int i = 1; i < rectangleArray.Length; i++)
204     {
205         double area = rectangleArray[i].Area();
206         if (area > maxArea)
207         {
208             maxArea = area;
209             maxIndex = i;
210         }
211     }
212
213     return maxIndex;
214 }
215
216 // Method to get the order number (index) of the rectangle with the minimum perimeter value
217 // References
218 public int NumberMinPerimeter()
```

Output:

```
Show output from: Build
1F:\vloggie\LAB-3\LAB-3\Program.cs(198,49,198,58): error CS1061: 'Rectangle' does not contain a definition for 'Perimeter' and no accessible extension method 'Perimeter' acc
1F:\vloggie\LAB-3\LAB-3\Program.cs(202,50,202,59): error CS1061: 'Rectangle' does not contain a definition for 'Perimeter' and no accessible extension method 'Perimeter' acc
1F:\vloggie\LAB-3\LAB-3\Program.cs(219,27,219,35): error CS1061: 'Rectangle' does not contain a definition for 'IsSquare' and no accessible extension method 'IsSquare' acc
1Done building project "LAB-3.csproj" -- FAILED.
----- Build: 0 succeeded, 1 failed, 0 up-to-date, 0 skipped -----
----- Build completed at 07:43 AM and took 00.360 seconds -----
```

