



**LABORATORIUM PEMBELAJARAN ILMU KOMPUTER**  
**FAKULTAS ILMU KOMPUTER**  
**UNIVERSITAS BRAWIJAYA**

BAB : WINDOWS FORM INTERACTION  
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## TUGAS 1

### A. Soal

1. Buat fungsional baru pada form1 untuk melakukan zoom in pada formPict yang aktif. (Jika tekan Zoom in, maka picturebox1 pada formPict yang aktif akan berukuran height bertambah 50 dan width bertambah 50).

### B. Source Code

	Form1.cs
1	using System;
2	using System.Collections.Generic;
3	using System.ComponentModel;
4	using System.Data;
5	using System.Drawing;
6	using System.Linq;
7	using System.Text;
8	using System.Threading.Tasks;
9	using System.Windows.Forms;
10	
11	namespace Bab3
12	{
13	public partial class Form1 : Form,
14	INotifyPropertyChanged
15	{
16	string ActiveForm;
17	List<FormPict> frmPict = new
18	List<FormPict>();
19	List<ToolStripMenuItem> TsItem = new
20	List<ToolStripMenuItem>();
21	ToolStripMenuItem Ts;
22	public event PropertyChangedEventHandler
23	PropertyChanged;
24	private void OnPropertyChanged(string v)
25	{
26	PropertyChanged?.Invoke(this, new
27	PropertyChangedEventArgs(v));
28	ToolStripMenuItem item =
29	(ToolStripMenuItem)menuStrip1.Items["WindowToolStr
30	ipMenuItem"];
31	foreach (ToolStripMenuItem itemchecked
32	in item.DropDownItems)
33	{
34	if (!itemchecked.Text.Equals(v))

```

35         itemchecked.Checked = false;
36     else
37         itemchecked.Checked = true;
38     }
39 }
40 public String ActiveForm1
41 {
42     get
43     {
44         return ActiveForm;
45     }
46     set
47     {
48         ActiveForm = value;
49         OnPropertyChanged(ActiveForm1);
50     }
51 }
52 public Form1()
53 {
54     InitializeComponent();
55     FormPict FP;
56 }
57
58 private void
59 OpenToolStripButton_Click(object sender, EventArgs
60 e)
61 {
62     if (openFileDialog1.ShowDialog() ==
63 DialogResult.OK)
64     {
65         frmPict.Add(new FormPict(this)
66         {
67             Text =
68 System.IO.Path.GetFileName(openFileDialog1.FileName
69 e),
70             MdiParent = this
71         });
72
73         frmPict[frmPict.Count -
74 1].setpic(Image.FromFile(openFileDialog1.FileName)
75 );
76         frmPict[frmPict.Count - 1].Show();
77         ToolStripMenuItem item =
78 (ToolStripMenuItem)menuStrip1.Items["windowToolStr
79 ipMenuItem"];
80         foreach (ToolStripMenuItem
81 itemchecked in item.DropDownItems)
82         {
83             itemchecked.Checked = false;
84         }
85
86         TsItem.Add(new
87 ToolStripMenuItem(null, null, ItemClick)
88         {
89             Text =
90 System.IO.Path.GetFileName(openFileDialog1.FileName
91 e),
92             Checked = true
93         });

```

```

94
95 item.DropDownItems.Add(TsItem[TsItem.Count - 1]);
96     }
97
98     }
99     private void ItemClick(object sender,
100 EventArgs e)
101     {
102         var tms = (ToolStripMenuItem)sender;
103
104         for (int i = 0; i < frmPict.Count;
105 i++)
106         {
107             if (String.Equals(frmPict[i].Text,
108 tms.ToString(),
109 StringComparison.OrdinalIgnoreCase))
110             {
111                 frmPict[i].Activate();
112             }
113         }
114     }
115
116     private void ToolStripButton1_Click(object
117 sender, EventArgs e)
118     {
119         FormPict tempChild =
120 (FormPict)this.ActiveMdiChild;
121         tempChild.PutarKanan();
122     }
123
124
125     private int AllDegree;
126     public int AllDegree1
127     {
128         get
129         {
130             return AllDegree;
131         }
132         set
133         {
134             AllDegree = value;
135         }
136     }
137
138     private void ToolStripButton2_Click(object
139 sender, EventArgs e)
140     {
141         FormPict tempChild =
142 (FormPict)this.ActiveMdiChild;
143         tempChild.PutarKiri();
144     }
145
146     private void ToolStripButton3_Click(object
147 sender, EventArgs e)
148     {
149         FormPict tempChild =
150 (FormPict)this.ActiveMdiChild;
151         tempChild.ZoomIn();
152

```

153	}
154	
155	}
156	}

	FormPict.cs
1	using System;
2	using System.Collections.Generic;
3	using System.ComponentModel;
4	using System.Data;
5	using System.Drawing;
6	using System.Linq;
7	using System.Text;
8	using System.Threading.Tasks;
9	using System.Windows.Forms;
10	
11	namespace Bab3
12	{
13	public partial class FormPict : Form
14	{
15	int deg, n;
16	Image gbrAsli;
17	Form1 FrmParent;
18	public FormPict(Form1 F1)
19	{
20	InitializeComponent();
21	FrmParent = F1;
22	}
23	
24	public void setpic(Image img)
25	{
26	pictureBox1.Image = img;
27	gbrAsli = pictureBox1.Image;
28	}
29	public void PutarKanan()
30	{
31	Image flipImage = pictureBox1.Image;
32	
33	flipImage.RotateFlip(RotateFlipType.Rotate90FlipNo
34	ne);
35	deg += 90;
36	if (deg > 360)
37	{
38	deg = deg - 360;
39	}
40	pictureBox1.Image = flipImage;
41	textBox1.Text = deg.ToString();
42	}
43	
44	private void button1_Click(object sender,
45	EventArgs e)
46	{
47	FrmParent.AllDegree1 = deg;
48	}
49	

```

50     private void button2_Click(object sender,
51     EventArgs e)
52     {
53         int a1, a2;
54         a1 = FrmParent.AllDegree1 / 90;
55         a2 = deg / 90;
56         if (a2 < a1)
57         {
58             for(int i = a2; i<a1; i++)
59             {
60                 PutarKanan();
61             }
62         }else if (a2 > a1)
63         {
64             for(int i=a1; i < a2; i++)
65             {
66                 PutarKiri();
67             }
68         }
69     }
70
71     public void PutarKiri()
72     {
73         Image flipImage = pictureBox1.Image;
74
75         flipImage.RotateFlip(RotateFlipType.Rotate270FlipN
76         one);
77         pictureBox1.Image = flipImage;
78         deg -= 90;
79         if (deg < 0)
80         {
81             textBox1.Text = deg.ToString();
82         }
83     }
84     public void ZoomIn()
85     {
86         pictureBox1.Width = pictureBox1.Width
87 + 50;
88         pictureBox1.Height =
89 pictureBox1.Height + 50;
90     }
91     public void ZoomOut()
92     {
93         pictureBox1.Width = pictureBox1.Width
94 - 50;
95         pictureBox1.Height =
96 pictureBox1.Height - 50;
97     }
98     }
99 }

```

## C. Screenshot

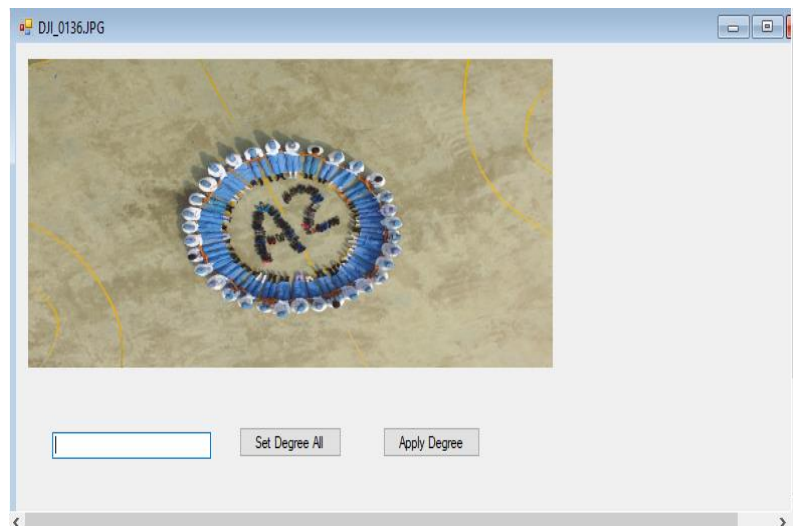
### 1. Pembuatan Method Zoom in

```
public void ZoomIn()
{
    pictureBox1.Width = pictureBox1.Width + 50;
    pictureBox1.Height = pictureBox1.Height + 50;
}
1 reference
```

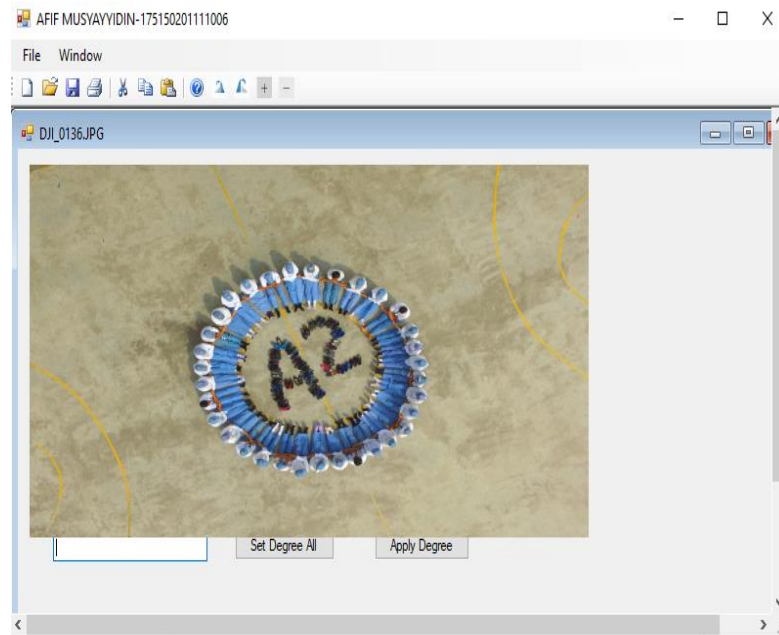
## 2. Pemanggilan Method ZoomIn pada Form1

```
1 reference
private void ToolStripButton3_Click(object sender, EventArgs e)
{
    FormPict tempChild = (FormPict)this.ActiveMdiChild;
    tempChild.ZoomIn();
}
```

## 3. Kondisi Awal



#### 4. Saat Di Zoom



#### D. Penjelasan

Dalam soal berikut, diperintahkan untuk melakukan pembuatan button zoom in agar gambar dapat diperbesar ukurannya pada FormPict dengan menggunakan button tersebut. Awalnya seperti pembuatan event klik kanan dan klik kiri pada latihan yaitu membuat method Zoom In pada FormPict yang berisi dimana ukuran lebar dan tinggi pada gambar ditambah dengan 50. Kemudian setelah itu dilakukan pembuatan method Zoom In pada FormPict, dimasukkan method tersebut pada Form1 yang merupakan parent dari FormPict yaitu dengan memberikan event pada tombol Zoom In yang sudah disediakan sebelumnya (Melakukan double klik pada button zoom in). Kemudian isi dari event button tersebut adalah pembuatan objek tempChild dari kelas FormPict. Kemudian memanggil method yang ada di FormPict (Method Zoom In) dengan menggunakan method tempChild tersebut. Form1 dapat dijalankan dan memasukkan gambar yang ingin ditampilkan. Lakukan klik pada button zoom in.

## TUGAS 2

#### A. Soal

1. Buat fungsional baru pada form1 untuk melakukan zoom out pada formPict yang aktif. (Jika tekan Zoom in, maka picturebox1 pada

formpict yang aktif akan berukuran height bertambah 50 dan width bertambah 50).

## B. Source Code

	Form1.cs
1	using System;
2	using System.Collections.Generic;
3	using System.ComponentModel;
4	using System.Data;
5	using System.Drawing;
6	using System.Linq;
7	using System.Text;
8	using System.Threading.Tasks;
9	using System.Windows.Forms;
10	
11	namespace Bab3
12	{
13	public partial class Form1 : Form,
14	INotifyPropertyChanged
15	{
16	string ActiveForm;
17	List<FormPict> frmPict = new
18	List<FormPict>();
19	List<ToolStripMenuItem> TsItem = new
20	List<ToolStripMenuItem>();
21	ToolStripMenuItem Ts;
22	public event PropertyChangedEventHandler
23	PropertyChanged;
24	private void OnPropertyChanged(string v)
25	{
26	PropertyChanged?.Invoke(this, new
27	PropertyChangedEventArgs(v));
28	ToolStripMenuItem item =
29	(ToolStripMenuItem)menuStrip1.Items["WindowToolStr
30	ipMenuItem"];
31	foreach (ToolStripMenuItem itemchecked
32	in item.DropDownItems)
33	{
34	if (!itemchecked.Text.Equals(v))
35	itemchecked.Checked = false;
36	else
37	itemchecked.Checked = true;
38	}
39	}
40	public String ActiveForm1
41	{
42	get
43	{
44	return ActiveForm;
45	}
46	set
47	{
48	ActiveForm = value;



```

49         OnPropertyChanged(ActiveForm1);
50     }
51 }
52 public Form1()
53 {
54     InitializeComponent();
55     FormPict FP;
56 }
57
58     private void
59 OpenToolStripButton_Click(object sender, EventArgs
60 e)
61     {
62         if (openFileDialog1.ShowDialog() ==
63 DialogResult.OK)
64         {
65             frmPict.Add(new FormPict(this)
66             {
67                 Text =
68 System.IO.Path.GetFileName(openFileDialog1.FileName
69 e),
70                 MdiParent = this
71             });
72
73             frmPict[frmPict.Count -
74 1].setpic(Image.FromFile(openFileDialog1.FileName)
75 );
76             frmPict[frmPict.Count - 1].Show();
77             ToolStripMenuItem item =
78 (ToolStripMenuItem)menuStrip1.Items["windowToolStr
79 ipMenuItem"];
80             foreach (ToolStripMenuItem
81 itemchecked in item.DropDownItems)
82             {
83                 itemchecked.Checked = false;
84             }
85
86             TsItem.Add(new
87 ToolStripMenuItem(null, null, ItemClick)
88             {
89                 Text =
90 System.IO.Path.GetFileName(openFileDialog1.FileName
91 e),
92                 Checked = true
93             });
94
95             item.DropDownItems.Add(TsItem[TsItem.Count - 1]);
96         }
97     }
98 }
99     private void ItemClick(object sender,
100 EventArgs e)
101     {
102         var tms = (ToolStripMenuItem)sender;
103
104         for (int i = 0; i < frmPict.Count;
105 i++)
106         {
107

```

```

108         if (String.Equals(frmPict[i].Text,
109 tms.ToString(),
110 StringComparison.OrdinalIgnoreCase))
111         {
112             frmPict[i].Activate();
113         }
114     }
115 }
116
117     private void ToolStripButton1_Click(object
118 sender, EventArgs e)
119     {
120         FormPict tempChild =
121 (FormPict)this.ActiveMdiChild;
122         tempChild.PutarKanan();
123     }
124
125     private int AllDegree;
126     public int AllDegree1
127     {
128         get
129         {
130             return AllDegree;
131         }
132         set
133         {
134             AllDegree = value;
135         }
136     }
137 }
138
139     private void ToolStripButton2_Click(object
140 sender, EventArgs e)
141     {
142         FormPict tempChild =
143 (FormPict)this.ActiveMdiChild;
144         tempChild.PutarKiri();
145     }
146
147     private void ToolStripButton3_Click(object
148 sender, EventArgs e)
149     {
150         FormPict tempChild =
151 (FormPict)this.ActiveMdiChild;
152         tempChild.ZoomIn();
153     }
154
155     private void ToolStripButton4_Click(object sender,
156 EventArgs e)
157     {
158         FormPict tempChild =
159 (FormPict)this.ActiveMdiChild;
160         tempChild.ZoomOut();
161     }
162 }
163 }
164 }

```

	FormPict.cs
1	using System;
2	using System.Collections.Generic;
3	using System.ComponentModel;
4	using System.Data;
5	using System.Drawing;
6	using System.Linq;
7	using System.Text;
8	using System.Threading.Tasks;
9	using System.Windows.Forms;
10	
11	namespace Bab3
12	{
13	public partial class FormPict : Form
14	{
15	int deg, n;
16	Image gbrAsli;
17	Form1 FrmParent;
18	public FormPict(Form1 F1)
19	{
20	InitializeComponent();
21	FrmParent = F1;
22	}
23	
24	public void setpic(Image img)
25	{
26	pictureBox1.Image = img;
27	gbrAsli = pictureBox1.Image;
28	}
29	public void PutarKanan()
30	{
31	Image flipImage = pictureBox1.Image;
32	
33	flipImage.RotateFlip(RotateFlipType.Rotate90FlipNo
34	ne);
35	deg += 90;
36	if (deg > 360)
37	{
38	deg = deg - 360;
39	}
40	pictureBox1.Image = flipImage;
41	textBox1.Text = deg.ToString();
42	}
43	
44	private void button1_Click(object sender,
45	EventArgs e)
46	{
47	FrmParent.AllDegree1 = deg;
48	}
49	
50	private void button2_Click(object sender,
51	EventArgs e)
52	{
53	int a1, a2;
54	a1 = FrmParent.AllDegree1 / 90;
55	a2 = deg / 90;
56	if (a2 < a1)
57	{
58	for(int i = a2; i<a1; i++)

```

59         {
60             PutarKanan();
61         }
62     }else if (a2 > a1)
63     {
64         for(int i=a1; i < a2; i++)
65         {
66             PutarKiri();
67         }
68     }
69 }
70
71 public void PutarKiri()
72 {
73     Image flipImage = pictureBox1.Image;
74     flipImage.RotateFlip(RotateFlipType.Rotate270FlipN
75 one);
76     pictureBox1.Image = flipImage;
77     deg -= 90;
78     if (deg < 0)
79     {
80         textBox1.Text = deg.ToString();
81     }
82 }
83
84 public void ZoomIn()
85 {
86     pictureBox1.Width = pictureBox1.Width
87 + 50;
88     pictureBox1.Height =
89 pictureBox1.Height + 50;
90 }
91 public void ZoomOut()
92 {
93     pictureBox1.Width = pictureBox1.Width
94 - 50;
95     pictureBox1.Height =
96 pictureBox1.Height - 50;
97 }
98 }
99 }

```

## C. Screenshot

### 1. Pembuatan Method Zoom Out

```

public void ZoomOut()
{
    pictureBox1.Width = pictureBox1.Width - 50;
    pictureBox1.Height = pictureBox1.Height - 50;
}

```

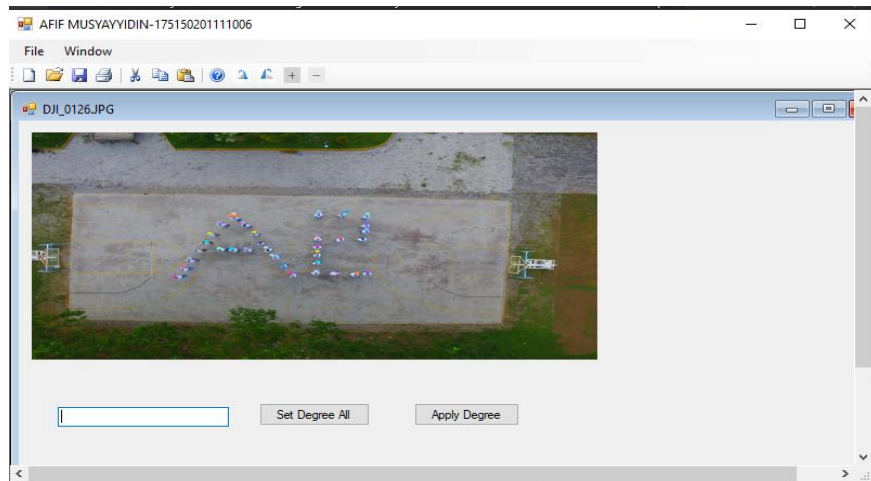
### 2. Pemanggilan Method Zoom Out

```

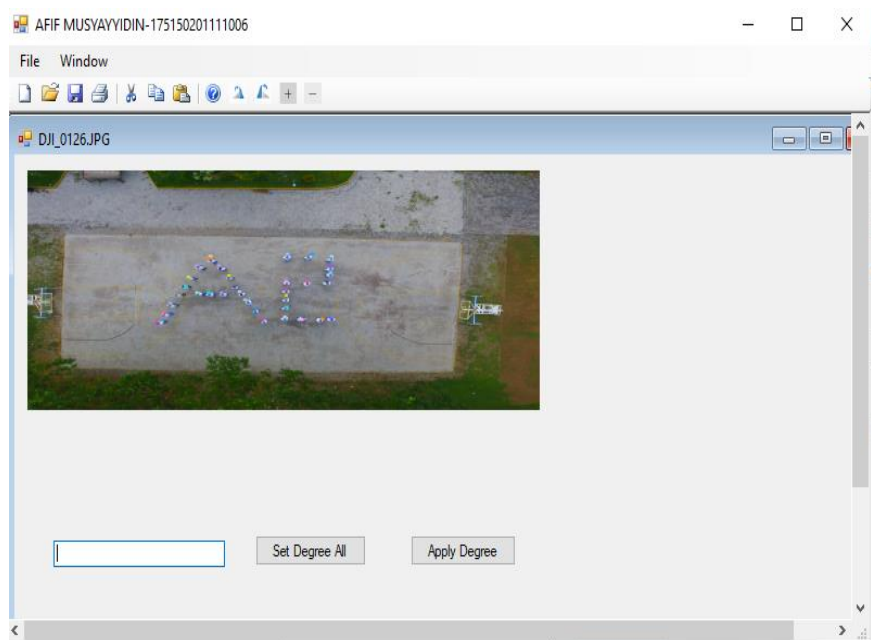
private void ToolStripButton4_Click(object sender, EventArgs e)
{
    FormPict tempChild = (FormPict)this.ActiveMdiChild;
    tempChild.ZoomOut();
}

```

### 3. Kondisi Awal



### 4. Setelah di Zoom Out



## D. Penjelasan

Dalam soal berikut, diperintahkan untuk melakukan pembuatan button zoom Out agar gambar dapat diperkecil ukurannya pada FormPict dengan menggunakan button tersebut. Tidak jauh berbeda dengan pembuatan event pada button zoom In di soal pertama. Awalnya

membuat method Zoom Out pada FormPict yang berisi dimana ukuran lebar dan tinggi pada gambar dikurangi dengan 50. Kemudian setelah dilakukan pembuatan method Zoom Out pada FormPict, dimasukkan method tersebut pada Form1 yang merupakan parent dari FormPict yaitu dengan memberikan event pada tombol Zoom Out yang sudah disediakan sebelumnya (Melakukan double klik pada button zoom out). Kemudian isi dari event button tersebut adalah pembuatan objek tempChild dari kelas FormPict. Kemudian memanggil method yang ada di FormPict (Method Zoom Out) dengan menggunakan method tempChild tersebut. Form1 dapat dijalankan dan memasukkan gambar yang ingin ditampilkan. Lakukan klik pada button zoom out

### TUGAS 3

#### A. Soal

1. Buat fungsional baru pada formPict untuk mengatur ukuran yang akan diaplikasikan pada formPict lain yang aktif. (Jika tekan tombol Atur Zoom Level pada satu formPict, maka semua pictureBox1 pada formPict lain2 akan berukuran sama dengan ukuran pictureBox1 yang melakukan setting).

#### B. Source Code

	Form1.cs
1	using System;
2	using System.Collections.Generic;
3	using System.ComponentModel;
4	using System.Data;
5	using System.Drawing;
6	using System.Linq;
7	using System.Text;
8	using System.Threading.Tasks;
9	using System.Windows.Forms;
10	
11	namespace Bab3
12	{
13	public partial class Form1 : Form,
14	INotifyPropertyChanged
15	{
16	string ActiveForm;
17	List<FormPict> frmPict = new
18	List<FormPict>();
19	List<ToolStripMenuItem> TsItem = new
20	List<ToolStripMenuItem>();
21	ToolStripMenuItem Ts;
22	

```

23         public event PropertyChangedEventHandler
24     PropertyChanged;
25         private void OnPropertyChanged(string v)
26     {
27             PropertyChanged?.Invoke(this, new
28     PropertyChangedEventArgs(v));
29             ToolStripMenuItem item =
30     (ToolStripMenuItem)menuStrip1.Items["WindowToolStr
31     ipMenuItem"];
32             foreach (ToolStripMenuItem itemchecked
33     in item.DropDownItems)
34     {
35                 if (!itemchecked.Text.Equals(v))
36                     itemchecked.Checked = false;
37             else
38                 itemchecked.Checked = true;
39             }
40         }
41         public String ActiveForm1
42     {
43             get
44             {
45                 return ActiveForm;
46             }
47             set
48             {
49                 ActiveForm = value;
50                 OnPropertyChanged(ActiveForm1);
51             }
52         }
53         public Form1()
54     {
55             InitializeComponent();
56             FormPict FP;
57         }
58
59         private void
60     OpenToolStripButton_Click(object sender, EventArgs
61     e)
62     {
63             if (openFileDialog1.ShowDialog() ==
64     DialogResult.OK)
65             {
66                 frmPict.Add(new FormPict(this)
67                 {
68                     Text =
69     System.IO.Path.GetFileName(openFileDialog1.FileName
70     e),
71                     MdiParent = this
72                 });
73
74                 frmPict[frmPict.Count -
75     1].setpic(Image.FromFile(openFileDialog1.FileName)
76     );
77                 frmPict[frmPict.Count - 1].Show();
78                 ToolStripMenuItem item =
79     (ToolStripMenuItem)menuStrip1.Items["windowToolStr
80     ipMenuItem"];
81

```

```

82         foreach (ToolStripMenuItem
83 itemchecked in item.DropDownItems)
84         {
85             itemchecked.Checked = false;
86         }
87
88         TsItem.Add(new
89 ToolStripMenuItem(null, null, ItemClick)
90         {
91             Text =
92 System.IO.Path.GetFileName(openFileDialog1.FileName
93 e),
94             Checked = true
95         });
96
97 item.DropDownItems.Add(TsItem[TsItem.Count - 1]);
98     }
99
100     }
101     private void ItemClick(object sender,
102 EventArgs e)
103     {
104         var tms = (ToolStripMenuItem)sender;
105
106         for (int i = 0; i < frmPict.Count;
107 i++)
108         {
109             if (String.Equals(frmPict[i].Text,
110 tms.ToString(),
111 StringComparison.OrdinalIgnoreCase))
112             {
113                 frmPict[i].Activate();
114             }
115         }
116     }
117
118     private void ToolStripButton1_Click(object
119 sender, EventArgs e)
120     {
121         FormPict tempChild =
122 (FormPict)this.ActiveMdiChild;
123         tempChild.PutarKanan();
124     }
125
126
127     private int AllDegree;
128     public int AllDegree1
129     {
130         get
131         {
132             return AllDegree;
133         }
134         set
135         {
136             AllDegree = value;
137         }
138     }
139     private int AllSize;
140     public int AllSize1

```



141	{
142	get
143	{
144	return AllSize;
145	}
146	set
147	{
148	AllSize = value;
149	}
150	}
151	
152	private void ToolStripButton2_Click(object
153	sender, EventArgs e)
154	{
155	FormPict tempChild =
156	(FormPict)this.ActiveMdiChild;
157	tempChild.PutarKiri();
158	}
159	
160	private void ToolStripButton3_Click(object
161	sender, EventArgs e)
162	{
163	FormPict tempChild =
164	(FormPict)this.ActiveMdiChild;
165	tempChild.ZoomIn();
166	
167	}
168	
169	private void ToolStripButton4_Click(object
170	sender, EventArgs e)
171	{
172	FormPict tempChild =
173	(FormPict)this.ActiveMdiChild;
174	tempChild.ZoomOut();
175	}
176	}
177	}

	FormPict.cs
1	using System;
2	using System.Collections.Generic;
3	using System.ComponentModel;
4	using System.Data;
5	using System.Drawing;
6	using System.Linq;
7	using System.Text;
8	using System.Threading.Tasks;
9	using System.Windows.Forms;
10	
11	namespace Bab3
12	{
13	public partial class FormPict : Form
14	{
15	int deg, n,Size;
16	Image gbrAsli;
17	Form1 FrmParent;

```

18     public FormPict(Form1 F1)
19     {
20         InitializeComponent();
21         FrmParent = F1;
22     }
23
24     public void setpic(Image img)
25     {
26         pictureBox1.Image = img;
27         gbrAsli = pictureBox1.Image;
28     }
29     public void PutarKanan()
30     {
31         Image flipImage = pictureBox1.Image;
32
33         flipImage.RotateFlip(RotateFlipType.Rotate90FlipNo
34 ne);
35         deg += 90;
36         if (deg > 360)
37         {
38             deg = deg - 360;
39         }
40         pictureBox1.Image = flipImage;
41         textBox1.Text = deg.ToString();
42     }
43
44     private void button1_Click(object sender,
45 EventArgs e)
46     {
47         FrmParent.AllDegree1 = deg;
48     }
49
50     private void button2_Click(object sender,
51 EventArgs e)
52     {
53         int a1, a2;
54         a1 = FrmParent.AllDegree1 / 90;
55         a2 = deg / 90;
56         if (a2 < a1)
57         {
58             for(int i = a2; i<a1; i++)
59             {
60                 PutarKanan();
61             }
62         }else if (a2 > a1)
63         {
64             for(int i=a1; i < a2; i++)
65             {
66                 PutarKiri();
67             }
68         }
69     }
70
71     public void PutarKiri()
72     {
73         Image flipImage = pictureBox1.Image;
74
75         flipImage.RotateFlip(RotateFlipType.Rotate270FlipN
76 one);

```

```

77         pictureBox1.Image = flipImage;
78         deg -= 90;
79         if (deg < 0)
80         {
81             textBox1.Text = deg.ToString();
82         }
83     }
84     public void ZoomIn()
85     {
86         pictureBox1.Width = pictureBox1.Width
87 + 50;
88         pictureBox1.Height =
89 pictureBox1.Height + 50;
90         Size += 50;
91         textBox1.Text = Size.ToString();
92     }
93
94     private void button4_Click(object sender,
95 EventArgs e)
96     {
97         int a1, a2;
98         a1 = FrmParent.AllSize1 / 50;
99         a2 = Size / 50;
100        if (a2 < a1)
101        {
102            for (int i = a2; i < a1; i++)
103            {
104                ZoomIn();
105            }
106        }
107        else if (a2 > a1)
108        {
109            for (int i = a1; i < a2; i++)
110            {
111                ZoomOut();
112            }
113        }
114    }
115
116     private void button3_Click(object sender,
117 EventArgs e)
118     {
119         FrmParent.AllSize1 = Size;
120     }
121
122     public void ZoomOut()
123     {
124         pictureBox1.Width = pictureBox1.Width
125 - 50;
126         pictureBox1.Height =
127 pictureBox1.Height - 50;
128         Size -= 50;
129         textBox1.Text = Size.ToString();
130     }
131 }
132 }

```

### C. Screenshot

1. Membuat method untuk mengambil semua ukuran

```
private int AllSize;  
2 references  
public int AllSize1  
{  
    get  
    {  
        return AllSize;  
    }  
    set  
    {  
        AllSize = value;  
    }  
}
```

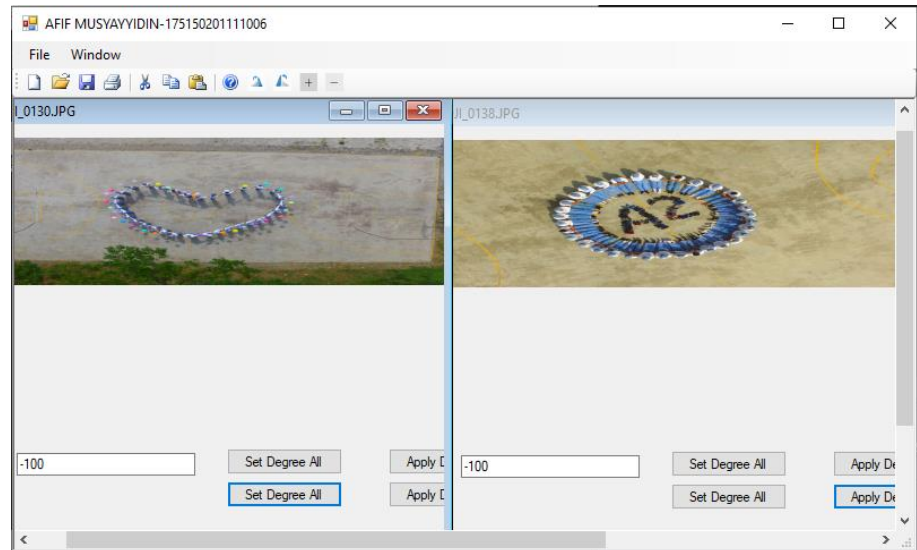
2. Membuat method untuk button

```
private void button3_Click(object sender, EventArgs e)  
{  
    FrmParent.AllSize1 = Size;  
}
```

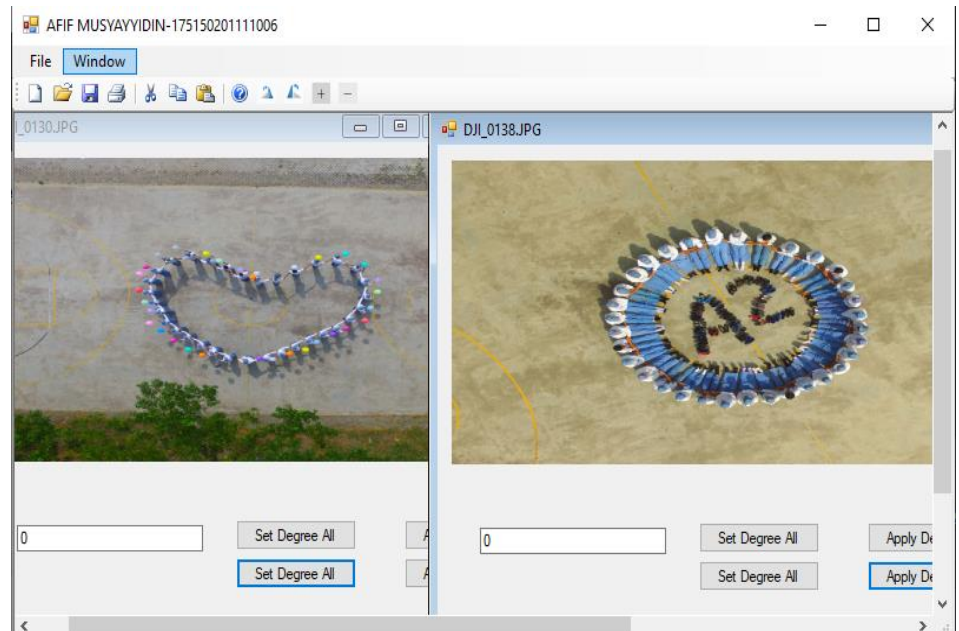
3. Membuat method untuk button Apply

```
private void button4_Click(object sender, EventArgs e)  
{  
    int a1, a2;  
    a1 = FrmParent.AllSize1 / 50;  
    a2 = Size / 50;  
    if (a2 < a1)  
    {  
        for (int i = a2; i < a1; i++)  
        {  
            ZoomIn();  
        }  
    }  
    else if (a2 > a1)  
    {  
        for (int i = a1; i < a2; i++)  
        {  
            ZoomOut();  
        }  
    }  
}
```

4. Kondisi Awal



##### 5. Kondisi Akhir



#### D. Penjelasan

Pada percobaan diatas hamper sama seperti percobaan pada latihan, disini dibuat terlebih dahulu 2 button untuk Set Sizenya dan button untuk Apply Sizenya. Kemudian membuat method AllSize1 pada Form1.cs dan sebelumnya mendeklarasikan variable AllSize dan membuat variable global Size yang bertipe data integer. Setelah itu melakukan pembuatan event pada button baru yang telah dibuat tadi pada FormPict.cs. Sedikit perubahan pada Method ZoomIn dan ZoomOut pada FormPict.cs agar perubahan ukurannya dapat diketahui dan dilihat pada textbox. Kemudian jalankan Form1.cs tersebut. Setelah itu buka gambar dengan

mengklik button open file. Buka gambar sebanyak 2 untuk mengetest program tersebut. Lakukan perubahan pada gambar pertama yaitu dengan melakukan zoom in atau zoom out pada salah satu gambar tersebut lalu klik Set All Size. Setelah itu pindah pada gambar lainnya atau gambar kedua, klik apply size agar ukuran gambarnya dapat mengikuti ukuran gambar yang ada di gambar pertama.