

# WINDOWS PRESENTATION FOUNDATION

## LEKTION 2

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## AGENDA

### Mer om Paneler

- Grid
- Stack Panel
- Wrap Panel
- Dock Panel

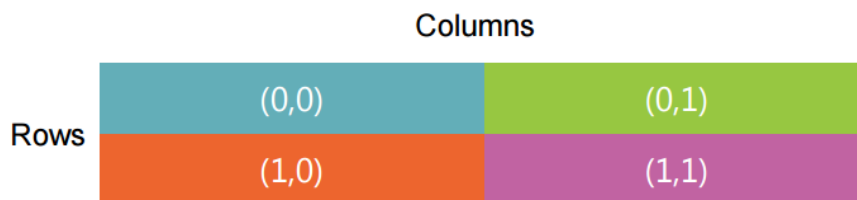
### Mer om Kontroller

- ScrollViewer
- TreeView
- Label och TextBlock
- TextBox och PasswordBox
- GroupBox och RadioButton
- Menu, ContextMenu och Toolbar
- CheckBox och ComboBox
- Calendar och DatePicker

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# GRID

Grid är en rutnätslayout med rader och kolumner.



## GRID – DEFINIERA RADER

```
<Grid>  
  <Grid.RowDefinitions>  
    <RowDefinition Height="100" />  
    <RowDefinition Height="Auto" />  
    <RowDefinition />  
  </Grid.RowDefinitions>  
</Grid>
```

## GRID – DEFINIERA KOLUMNER

```
<Grid>
  <Grid.ColumnDefinitions>
    <ColumnDefinition Width="*" />
    <ColumnDefinition Width="2*" />
  </Grid.ColumnDefinitions>
</Grid>
```

2\*  
betyder dubbelt  
så stort

## GRID – PLACERA INNEHÅLL

```
<Rectangle Fill="Red" Grid.Row="0" />
<Rectangle Fill="Orange" Grid.Row="0" Grid.Column="1"/>
<Label FontSize="24" Grid.Row="1" Grid.ColumnSpan="2">
Lite text som sträcker sig över 2 kolumner
</Label>
<Rectangle Fill="Yellow" Grid.Row="2" />
<Rectangle Fill="Green" Grid.Row="2" Grid.Column="1"/>
```

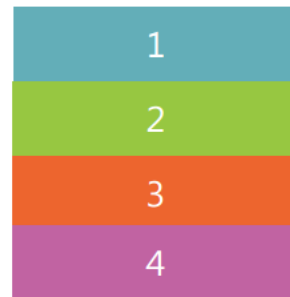
Attached  
properties

## EXEMPEL PÅ RESULTATET



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## STACKPANEL



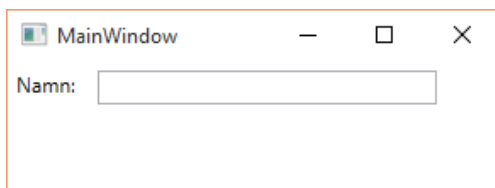
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## STACKPANEL — EXEMPEL 1

```
<StackPanel>
  <Rectangle Width="50" Height="50" Fill="#FF63AEB8" />
  <Rectangle Width="50" Height="50" Fill="#FF97C741" />
  <Rectangle Width="50" Height="50" Fill="#FFED652E" />
  <Rectangle Width="50" Height="50" Fill="#FFC163A2" />
</StackPanel>
```

## STACKPANEL — EXEMPEL 2

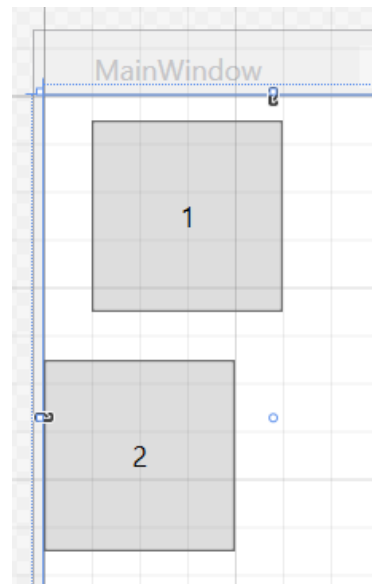
```
<StackPanel Orientation="Horizontal">
  <TextBlock Text="Namn: " Margin="5" />
  <TextBox Width="200" Height="20" Margin="5" VerticalAlignment="Top" />
</StackPanel>
```



## MER OM MARGIN

```
<StackPanel>
  <Button Content="1"
    Height="80" Width="80"
    Margin="20,10,0,20"
    HorizontalAlignment="Left"/>
  <Button Content="2"
    Height="80" Width="80"
    HorizontalAlignment="Left" />
</StackPanel>
```

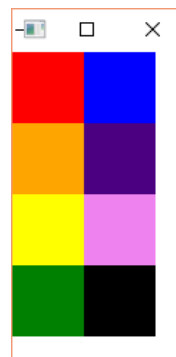
Margin="left,top,right,bottom"



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## WRAPPANEL — EXEMPEL

```
<WrapPanel Orientation="Vertical">
  <Rectangle Fill="Red" Height="50" Width="50" />
  <Rectangle Fill="Orange" Height="50" Width="50" />
  <Rectangle Fill="Yellow" Height="50" Width="50" />
  <Rectangle Fill="Green" Height="50" Width="50" />
  <Rectangle Fill="Blue" Height="50" Width="50" />
  <Rectangle Fill="Indigo" Height="50" Width="50" />
  <Rectangle Fill="Violet" Height="50" Width="50" />
  <Rectangle Fill="Black" Height="50" Width="50" />
</WrapPanel>
```



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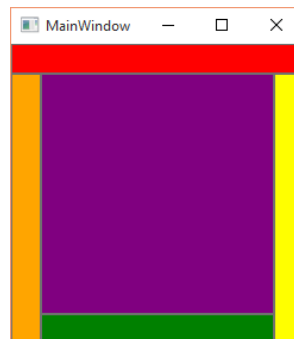
## WRAPPANEL — EXEMPEL 2

```
<Grid>
  <Button>
    <Button.FontWeight>Bold</Button.FontWeight>
    <Button.Content>
      <WrapPanel Orientation="Vertical">
        <TextBlock Foreground="Blue">Färgglad</TextBlock>
        <TextBlock Foreground="Red">knapp</TextBlock>
      </WrapPanel>
    </Button.Content>
  </Button>
</Grid>
```

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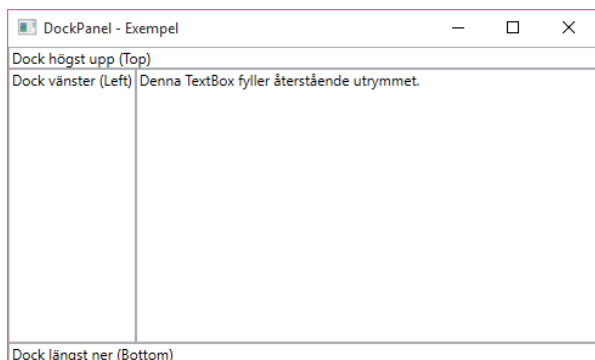
## DOCKPANEL — EXEMPEL 1

```
<DockPanel>
<Button Background="Red" Height="25" DockPanel.Dock="Top" />
<Button Background="Orange" Width="25" DockPanel.Dock="Left" />
<Button Background="Yellow" Width="25" DockPanel.Dock="Right" />
<Button Background="Green" Height="25" DockPanel.Dock="Bottom" />
<Button Background="Purple" />
</DockPanel>
```



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## DOCKPANEL — EXEMPEL 2

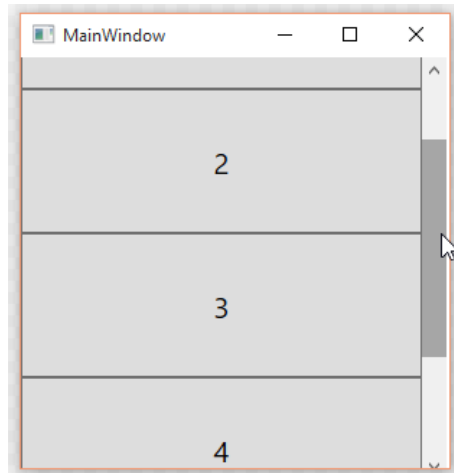


```
<DockPanel>  
<TextBox DockPanel.Dock="Top">Dock högst upp (Top) </TextBox>  
<TextBox DockPanel.Dock="Bottom">Dock längst ner (Bottom)</TextBox>  
<TextBox DockPanel.Dock="Left">Dock vänster (Left)</TextBox>  
<TextBox>Denna TextBox fyller återstående utrymmet</TextBox>  
</DockPanel>
```

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## SCROLLVIEWER

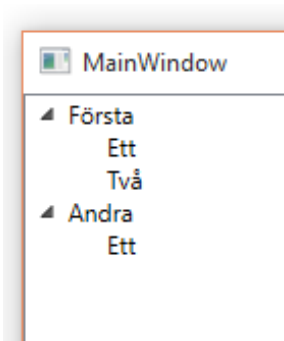
```
<ScrollViewer>  
<StackPanel>  
<Button Height="100" FontSize="20">1</Button>  
<Button Height="100" FontSize="20">2</Button>  
<Button Height="100" FontSize="20">3</Button>  
<Button Height="100" FontSize="20">4</Button>  
<Button Height="100" FontSize="20">5</Button>  
</StackPanel>  
</ScrollViewer>
```



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# TREEVIEW



```
<TreeView>
```

```
<TreeViewItem>
```

```
<TreeViewItem.Header>
```

```
<TextBlock>Första</TextBlock>
```

```
</TreeViewItem.Header>
```

```
<TreeViewItem Header="Ett" />
```

```
<TreeViewItem Header="Två" />
```

```
</TreeViewItem>
```

```
<TreeViewItem>
```

```
<TreeViewItem.Header>
```

```
<TextBlock>Andra</TextBlock>
```

```
</TreeViewItem.Header>
```

```
<TextBlock Text="Ett" />
```

```
</TreeViewItem>
```

```
</TreeView>
```

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# MER OM LABEL

```
<Label
```

```
Content="Datum: "
```

```
Margin="20" Padding="20"
```

```
HorizontalAlignment="Center" VerticalAlignment="Center"
```

```
Background="Beige" FontSize="30"
```

```
Loaded="Label_Loaded"/>
```

```
private void Label_Loaded(object sender, RoutedEventArgs e)
```

```
{
```

```
((Label)sender).Content += DateTime.Now.ToShortDateString();
```

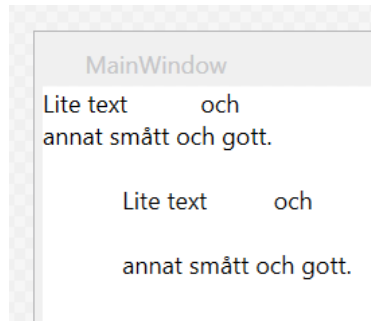
```
}
```

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## TEXTBLOCK RADBRYTNING OCH MELLANRUM

```
<StackPanel>
  <TextBlock>
    Lite text &#160; &#160; &#160; &#160; &#160; och
  <LineBreak />
    annat smått och gott.
</TextBlock>
<TextBlock xml:space="preserve">
  Lite text      och

  annat smått och gott.
</TextBlock>
</StackPanel>
```



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## TEXTBLOCK SPAN OCH RUN

```
<TextBlock >
  Lite normal text...<LineBreak />
  <Span FontWeight="Bold" FontFamily="Gill sans ">
    Formatering i span.
  </Span>
  <LineBreak />
  Normal text igen.
</TextBlock>
```

Byt ut Span mot Run  
Titta i dokumentationen.

MainWindow  
Lite normal text...  
**Formatering i span.**  
Normal text igen.

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## TEXTBLOCK BOLD OCH ITALIC

```
<TextBlock >
```

```
    Lite normal text...
```

```
    <Bold>lite fet</Bold>
```

```
    <Italic>och lite kursivt...</Italic>
```

```
    Normal text igen.
```

```
</TextBlock>
```

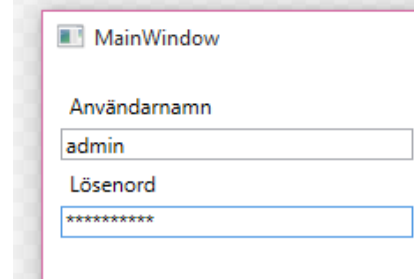
## TEXTWRAPPING

```
<TextBlock TextWrapping="Wrap">
```

```
    Lorem ipsum dolor sit amet, consectetur adipiscing elit,  
    sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.  
    Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris  
    nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in  
    reprehenderit in voluptate velit esse cillum dolore eu fugiat  
    nulla pariatur. Excepteur sint occaecat cupidatat non proident,  
    sunt in culpa qui officia deserunt mollit anim id est laborum."
```

```
</TextBlock>
```

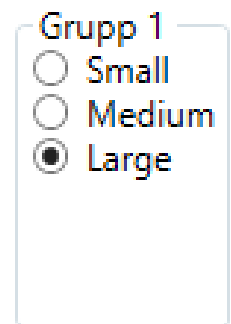
# PASSWORDBOX



```
<StackPanel Margin="10">  
  <Label>Användarnamn</Label>  
  <TextBox Width="200" HorizontalAlignment="Left"/>  
  <Label>Lösenord</Label>  
  <PasswordBox MaxLength="10" PasswordChar="*" Width="200" HorizontalAlignment="Left" />  
</StackPanel>
```

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# GROUPBOX

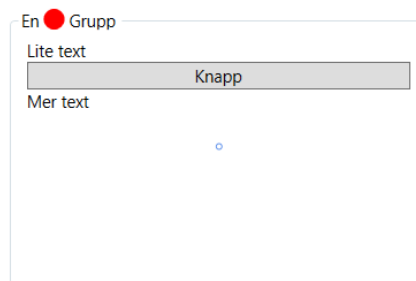


```
<StackPanel Orientation="Horizontal">  
  <GroupBox Header="Grupp 1" Margin="10">  
    <StackPanel>  
      <RadioButton Content="Small" />  
      <RadioButton Content="Medium" />  
      <RadioButton Content="Large" IsChecked="True" />  
    </StackPanel>  
  </GroupBox>  
</StackPanel>
```

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## GROUPBOX — EXEMPEL 2

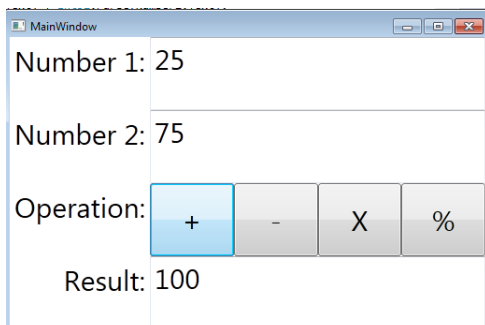
```
<GroupBox Width="300" Height="200">
  <GroupBox.Header>
    <StackPanel Orientation="Horizontal">
      <TextBlock Text="En " />
      <Ellipse Fill="Red" Width="15" Height="15" />
      <TextBlock Text=" Grupp" />
    </StackPanel>
  </GroupBox.Header>
  <StackPanel Margin="7">
    <TextBlock Text="Lite text" />
    <Button Content="Knapp" />
    <TextBlock Text="Mer text" />
  </StackPanel>
</GroupBox>
```



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## ÖVNING

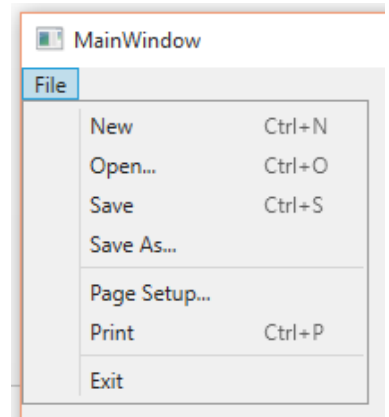
Skapa en enkel kalkylator enligt figuren nedan



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# MENYER

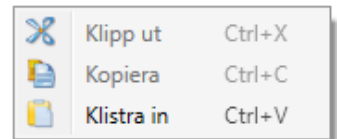
```
<Menu>
<MenuItem Header="_File">
<MenuItem Header="_New" InputGestureText="Ctrl+N" />
<MenuItem Header="_Open..." InputGestureText="Ctrl+O" />
<MenuItem Header="_Save" InputGestureText="Ctrl+S" />
<MenuItem Header="Save _As..." />
<Separator />
<MenuItem Header="Page Set_up..." />
<MenuItem Header="_Print" InputGestureText="Ctrl+P" />
<Separator />
<MenuItem Header="E_xit" />
</MenuItem>
</Menu>
```



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```
<RichTextBox>
  <RichTextBox.ContextMenu>
    <ContextMenu>
      <MenuItem Command="Cut">
        <MenuItem.Icon> <Image Source="Images/cut.png" />
        </MenuItem.Icon>
      </MenuItem>
      <MenuItem Command="Copy">
        <MenuItem.Icon><Image Source="Images/copy.png" />
        </MenuItem.Icon>
      </MenuItem>
      <MenuItem Command="Paste">
        <MenuItem.Icon> <Image Source="Images/paste.png" />
        </MenuItem.Icon>
      </MenuItem>
    </ContextMenu>
  </RichTextBox.ContextMenu>
</RichTextBox>
```

# CONTEXTMENU



Tips <http://www.readyicons.com/iconset-preview.php?id=4>

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# VERKTYGSRAD – TOOLBAR

```
<DockPanel>
```

```
  <ToolBar DockPanel.Dock="Top">
```

```
    <Button ToolTip="Öppna" ToolTipService.ShowDuration="2000">
```

```
      <Button.Content>
```

```
        <Image Source="/Images/folder.png" Width="16" Height="16" />
```

```
      </Button.Content>
```

```
    </Button>
```

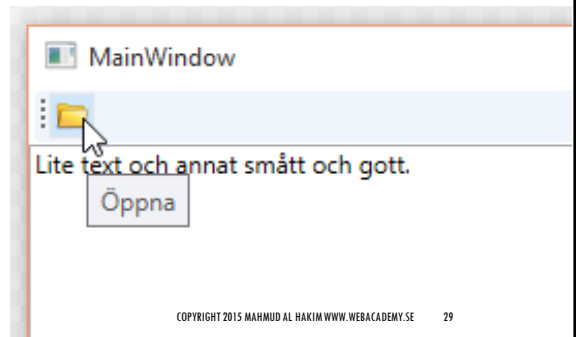
```
  </ToolBar>
```

```
  <TextBox>
```

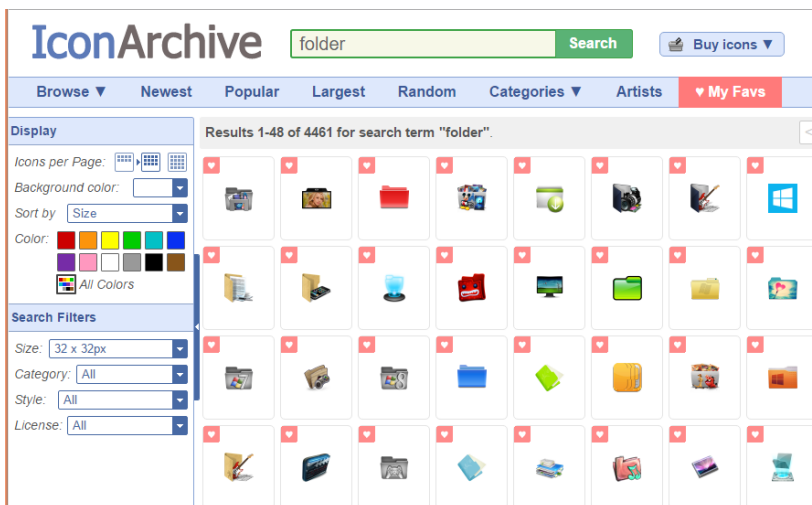
```
    Lite text och annat smått och gott.
```

```
  </TextBox>
```

```
</DockPanel>
```



# TIPS: WWW.ICONARCHIVE.COM



# KONTROLLER — SKAPA ETT FORMULÄR

MainWindow

Namn

Jag söker jobb på  Heltid  Deltid

Jag kan  C#  C++  Java

Jag vill arbeta som

Jag kan tidigast börja

november 2015						
må	ti	on	to	fr	lö	sö
26	27	28	29	30	31	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	1	2	3	4	5	6

Skicka

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# FORMULÄR STEG 1 DEFINIERA RADER OCH KOLUMNER

```
<Grid>
  <Grid.RowDefinitions>
    <RowDefinition Height="Auto" />
    <RowDefinition Height="Auto" />
    <RowDefinition Height="Auto" />
    <RowDefinition Height="Auto" />
    <RowDefinition Height="Auto" />
    <RowDefinition Height="Auto" />
  </Grid.RowDefinitions>
  <Grid.ColumnDefinitions>
    <ColumnDefinition Width="*" />
    <ColumnDefinition Width="2*" />
  </Grid.ColumnDefinitions>
</Grid>
```

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## FORMULÄR STEG 2

### TEXTBLOCK OCH TEXTBOX

```
<TextBlock Text="Namn"
    HorizontalAlignment="Right"
    Margin="5" />
<TextBox Grid.Column="1"
    Width="250" Height="20"
    HorizontalAlignment="Left"
    Margin="5" />
```

## FORMULÄR STEG 3

### RADIOBUTTON

```
<TextBlock Grid.Row="1" HorizontalAlignment="Right" Margin="5"
Text="Jag söker jobb på" />
<StackPanel Orientation="Horizontal" Grid.Row="1" Grid.Column="1"
VerticalAlignment="Stretch" HorizontalAlignment="Stretch">
<RadioButton GroupName="heltid" Content="Heltid" Margin="5"
IsChecked="True" />
<RadioButton GroupName="heltid " Content="Deltid" Margin="5" />
</StackPanel>
```

## FORMULÄR STEG 4

### CHECKBOX

```
<TextBlock Grid.Row="2" Text="Jag kan" HorizontalAlignment="Right"
VerticalAlignment="Bottom" Margin="5" />
<StackPanel Grid.Row="2" Grid.Column="1" Orientation="Horizontal"
VerticalAlignment="Bottom" HorizontalAlignment="Left">
    <CheckBox Content="C#" Margin="5" />
    <CheckBox Content="C++" Margin="5" />
    <CheckBox Content="Java" Margin="5" />
</StackPanel>
```

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## FORMULÄR STEG 5

### COMBOBOX

```
<TextBlock Text="Jag vill arbeta som" Grid.Row="3"
HorizontalAlignment="Right" Margin="5" />
<ComboBox Grid.Row="3" Grid.Column="1" HorizontalAlignment="Left"
VerticalAlignment="Bottom" Margin="5">
    <ComboBoxItem Content="Programmerare" />
    <ComboBoxItem Content="Designer" />
    <ComboBoxItem Content="Webbutvecklare" />
    <ComboBoxItem Content="DBA" />
</ComboBox>
```

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## FORMULÄR STEG 6

### CALENDAR

```
<TextBlock Text="Jag kan tidigast börja" Grid.Row="4"
HorizontalAlignment="Right" VerticalAlignment="Top" Margin="5" />
```

```
<Calendar Grid.Row="4" Grid.Column="1" Margin="5"
HorizontalAlignment="Left" />
```

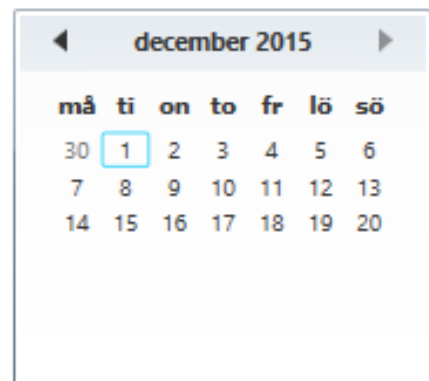
```
<Button Grid.Row="5" Grid.Column="1" Height="30" Width="100"
HorizontalAlignment="Left" Margin="5">Skicka</Button>
```

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## MER OM CALENDAR

### DISPLAYDATESTART OCH DISPLAYDATEEND

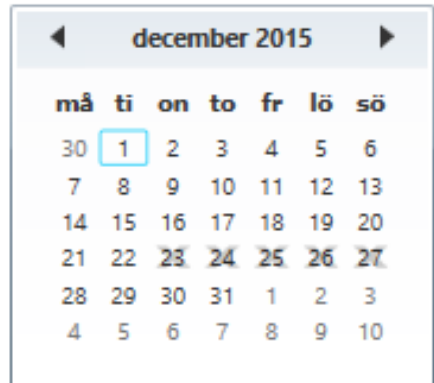
```
<Calendar
DisplayDateStart="2015/01/01"
DisplayDateEnd="2015/12/20" />
```



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# BLACKOUTDATES

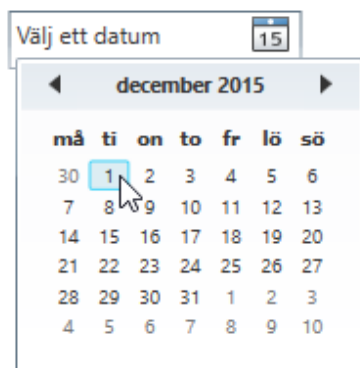
```
<Calendar>  
  <Calendar.BlackoutDates>  
    <CalendarDateRange  
      Start="2015/12/23"  
      End="2015/12/27" />  
  </Calendar.BlackoutDates>  
</Calendar>
```



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# DATEPICKER

```
<DatePicker Name="datePicker1" Height="25" Width="115" />
```



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# ÖVNING

Koda formuläret till höger från grunden i en helt ny WPF-applikation.

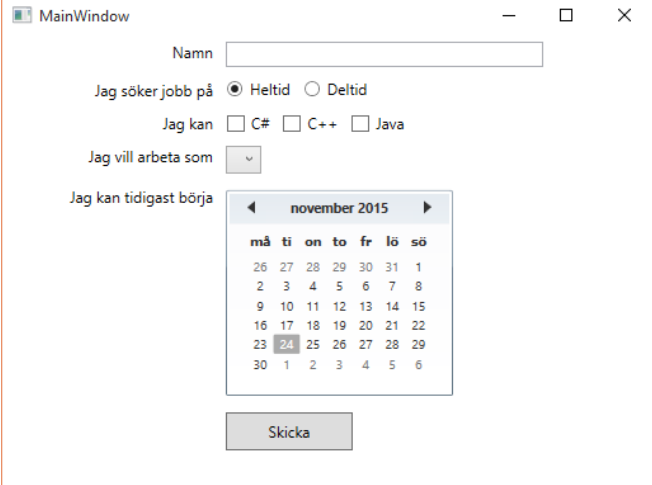
Lägg gärna till flera valfria kontroller.

Spara data i en textfil i CSV-format t.ex.

Mahmud;Deltid;C#;Java;Programmerare;2016-01-01

## VG-Övning

Spara data i en databas.



The screenshot shows a WPF application window titled "MainWindow" with the following controls:

- A text box for "Namn".
- Radio buttons for "Jag söker jobb på" with "Heltid" selected and "Deltid" unselected.
- Checkboxes for "Jag kan" with "C#" unselected, "C++" unselected, and "Java" unselected.
- A dropdown menu for "Jag vill arbeta som".
- A date picker for "Jag kan tidigast börja" showing "november 2015" with a calendar grid. The date 24 is selected.
- A "Skicka" button.