**WPF**

**Module 8 Collection Binding Lab**

**In this lab you will practices on**

**DataBinding,**

**ObservableCollection,**

**DataTemplate,**

**Converters,**

**At any case it is mostly recommended to try coding by yourself and using the attached samples only for backup.**

1. **Create Object Model call Person With Name and Age Properties**

public class Person

{

public int Age { get; set; }

public string Name { get; set; }

public Person(int \_age, string \_name)

{

Age = \_age;

Name = \_name;

}

}

1. **In the MainWindow.cs Provide ObservableCollection Type with some Persons**

public ObservableCollection<Person> Persons { get; set; }

1. **In the MainWindow.cs Provide function to add some random Person**

private void AddRandomPerson()

{

Persons.Add(new Person(new Random().Next(10, 80),"RandomPerson"));

}

1. **Create view that Present list of persons**

<ItemsControl ItemsSource="{Binding Persons}" />

1. **Create DataTemplate for the Person Type**
2. **The DataTemplate should include a CheckBox or other Visual item about Adult Person (if Person Item is above 18)**

<DataTemplate DataType="{x:Type local:Person}">

<Border BorderBrush="Black" CornerRadius="3" BorderThickness="2" Background="LightBlue">

<StackPanel>

<TextBlock Text="{Binding Name}"/>

<TextBlock Text="{Binding Age}"/>

<CheckBox IsChecked="True" Content="Adult" Visibility="{Binding Age,Converter={StaticResource converter}}" />

</StackPanel>

</Border>

</DataTemplate>

1. **That will implement using WPF Converter**

public class VisibilityConverter : IValueConverter

{

public object Convert(object value, Type targetType, object parameter, CultureInfo culture)

{

int Age = (int)value ;

if (Age >= 18)

{

return Visibility.Visible;

}

return Visibility.Collapsed;

}

public object ConvertBack(object value, Type targetType, object parameter, CultureInfo culture)

{

throw new NotImplementedException();

}

}

1. **In the view add button to add the RandomPerson to the List**

<Button Content="add Random Person" VerticalAlignment="Bottom"

Click="Button\_Click" />

1. **The button should activate the function you have been create at section 3**
2. **Set the Window DataContext to itself.**

public MainWindow()

{

InitializeComponent();

DataContext = this;

1. **Run the code and check :**

**1.the DataTemplate**

**2. the Converter.**

**3. the AddPerson method.**

GOOD LUCK