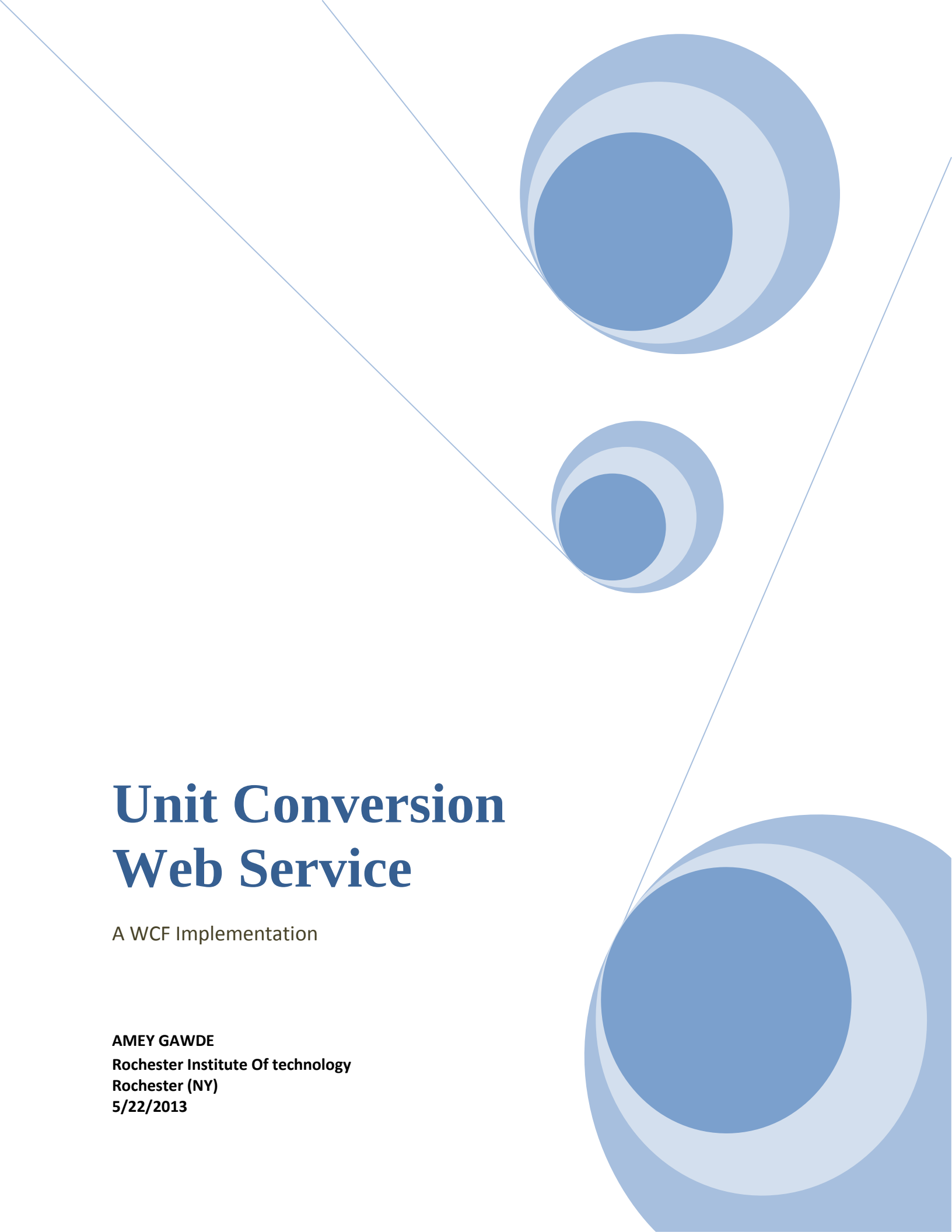

Unit Conversion Web Service

A WCF Implementation

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Introduction

Unit Conversion Web service has been created using the Windows Communication Foundation (WCF) version.NET4.5.

Path to Create a WCF project:
1. Open Visual Studio
2. Click File
3. Click New
4. Click Project
5. Select WCF Service Application from list of available projects for Visual C#
6. Give Name for Project Below

This is how you create the WCF project.

(For More information about how to create web service please follow the link)

http://vhost3.cs.rit.edu/application/documetations/How%20to%20create%20web%20service.pdf

Technology

No external APIs were used for creating this web service.

Functions available

- **CelsiusToFah**

  This function converts temperature from Celsius to Fahrenheit.

  Input parameters: temp in string

  Output: temperature in Fahrenheit.

- **fartoCels**

  This function converts temperature from Fahrenheit to Celsius.

  Input parameters: temp in string

  Output: temperature in Celsius.

- **celciTokelvin**

  This function converts temperature from Celsius to Kelvin.

  Input parameters: temp in string

  Output: temperature in Kelvin.

- **KelvinToCel**

  This function converts temperature from Kelvin to Celsius.

  Input parameters: temp in string

  Output: temperature in Celsius.

- **fartokelvin**

  This function converts temperature from Fahrenheit to Kelvin.

  Input parameters: temp in string

  Output: temperature in Kelvin.

- **KelvinToFah**

  This function converts temperature from Kelvin to Fahrenheit.

  Input parameters: temp in string

  Output: temperature in Fahrenheit.

Degree Conversion

- **degreetoRadian**

  This function converts angle from degree to radian.

  Input parameters: angle in string

  Output: angle in radian.

- **RadianToDegree**

  This function converts angle from radian to degree.

  Input parameters: angle in string

  Output: angle in degree.

Snippets

- **CelsiusToFah**

```
    /**
 * this function perform the temperature. conversion from Celsius to Fahrenheit
 * @param       value1    (double) temp to convert

 * @return              (double) Converted tempeature
 */
    public double celsiusToFah(double value1)
    {
        value1 = value1 * 1.8;
        value1 = value1 + 32;
       return value1;
    }
```

- **fartoCels**

```
    /**
 * this function perform the temperature conversion from Fahrenheit to Celsius
 * @param       value1    (double) temp to convert

 * @return              (double) Converted tempeature
 */
    public double fartoCels(double value1)
    {
        value1 = value1 - 32;
        value1 = value1 / 1.8;
        return value1;
    }
```

- **celciTokelvin**

```
    /**
 * this function perform the temperature conversion from celsius to Kelvin
 * @param       value1    (double) temp to convert

 * @return              (double) Converted tempeature
 */
    public double celciTokelvin(double value1)
    {
        value1 = value1 + 273.15;
        return value1;
    }
```

- **KelvinToCel**

```
    /**
 * this function perform the temperature conversion from Kelvin to celsius.
 * @param       value1    (double) temp to convert

 * @return              (double) Converted tempeature
 */
    public double kelvintoCel(double value1)
    {

        value1 = value1 - 273.15;
        return value1;
    }
```

- **fartokelvin**

```
    /**
* this function perform the temperature conversion from fahrenheit to Kelvin.
* @param       value1    (double) temp to convert

* @return              (double) Converted tempeature
*/
    public double fartoKelvin(double value1)
    {
        value1 = value1 + 459.67;
        value1 = value1 * 5 ;
        value1 = value1 / 9;
        return value1;

    }
```

- **KelvinToFah**

```
    /**
* this function perform the temperature conversion from Kelvin to fahrenheit.
* @param       value1    (double) temp to convert

* @return              (double) Converted tempeature
*/
    public double KelvintoFah(double value1)
    {

        value1 = value1 * 9;
        value1 = value1 / 5;
        value1 = value1 - 459.67;
        return value1;
    }
```

Degree Conversion

- **degreetoRadian**

```
    /**
* this function perform the temperature conversion from radian to degree.
* @param       value1    (double) temp to convert

* @return              (double) Converted tempeature
*/
    public double degreeToRadian(double value1)
    {

        value1 = value1 * pi;
        value1 = value1 / 180;
        return value1;
    }
```

- **RadianToDegree**

```
    /**
* this function perform the temperature conversion from degree to radian.
* @param       value1    (double) temp to convert

* @return              (double) Converted tempeature
*/
    public double RadianToDegree(double value1)
    {

        value1 = value1 * 180;
        value1 = value1 / pi;
        return value1;
    }
```

Publishing Web Service

Please click on following link and follow the instruction

http://vhost3.cs.rit.edu/application/documetations/Publish%20web%20service%20to%20IIS.pdf