

# BUDGETAPP

A Budget Management System

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# A Personal Budget Application

- Keep Track Of Spending
  - ▣ Manage a better Income
    - Plan out investments
      - Cut out useless funds
        - Create a better future

# Project Overview

WelcomeScreen

Welcome!

This Program is currently under development,  
please enter the developer password to continue.

Password

Login

Register Now! to Obtain a Developer Password

Register

[Click here](#) To visit our GitHub project

Email:

Country:

About:

Register

Budget Application

File Tools Help

From  to  Type

Id	Account	Category	RecType	Tags	Amount	Date
77	Scotia Debit	grosary	Spending	bananas	700	10/16/2017 12:00:00 AM
78	Scotia Debit	grosary	Spending	shrimps	787	10/3/2017 12:00:00 AM
80	bmo	grosary	Income	shrimps,bananas	500	10/10/2017 12:00:00 AM
81	Royal	Rent	Spending	bananas	650	10/20/2017 12:00:00 AM

Add Record

Delete

Edit

Stocks

\$992.000

\$159.880

\$77.650

\$1,006.340

Currencies

Amount

187.6650

Debit Summary

Account	Amount	Percentage
Scotia Debit	5500	42.31 %
Royal	3000	23.08 %
bmo	4500	34.62 %

# In Depth Features

From  to  Type  Advanced Search

ID	Account	Category	RecType	Tags	Amount	Date
77	Scotia Debit	grosary	Spending	bananas	700	10/16/2017 12:00:00 AM
78	Scotia Debit	grosary	Spending	shrimps	787	10/3/2017 12:00:00 AM
80	bmo	grosary	Income	shrimps,bananas	500	10/10/2017 12:00:00 AM
81	Royal	Rent	Spending	bananas	650	10/20/2017 12:00:00 AM

AAPL MSFT AMZN Get

Currencies

AddRecord

ID

Account

Category

☐ Spending ☐ Income

Date

Amount

AddRecord Close

Add/Edit Tags

Tags

Add Account

AddAccount

AccountName

Number

Type

Balance

Add Account

AddTags

New Tag:

Create tag

bananas shrimps

Tag(s)

=>

Save

AddCategory

Category

Add Category

New Scan

Scanner: Samsung Universal Scan Dr...

Profile:

Source:

Paper size:

Color format:

File type:

Resolution (DPI):

Brightness:

Contrast:

☐ Preview or scan images as separate files

Imported Pictures and Videos

File Home Share View

Imported Pictures and Videos

Search Imported Pictures and Videos

2017-10-16 (C:\Users\GP\Pictures) (1)

001

1 item

Print

General

Select Printer

☐ Fax ☐ Samsung Network PC Fa ☐ Samsung SCX-4623 Serie

☐ Microsoft Print to PDF ☐ Samsung SCX-4623 Serie

☐ Microsoft XPS Document Writer ☐ Samsung SCX-4623 Serie

Status: Ready

Location:

Comment:

Preferences

Find Printer...

Page Range

☐ All ☐ Selection ☐ Current Page

Pages:

Number of copies:

☐ Collate

Stocks

GOOG

AAPL

MSFT

AMZN

Get prices

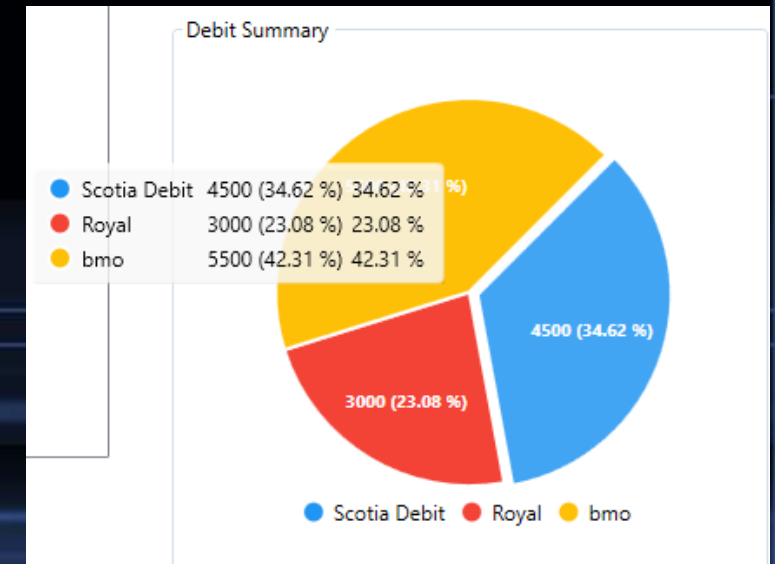
Currencies

EUR

Amount

120

Convert



# Challenges and Solutions

## ■ Import Scanner Image to DB

```
public void AddPictures(Byte[] p, int Id)
{
    SqlCommand insertCommand = new SqlCommand("UPDATE Records SET Document = @Document WHERE RecordId = @RecordId", conn);
    SqlParameter binParam = new SqlParameter("Document", SqlDbType.VarBinary);
    binParam.Value = p;
    insertCommand.Parameters.Add(binParam);
    insertCommand.Parameters.Add(new SqlParameter("RecordId", Id));
    insertCommand.ExecuteNonQuery();
}
```

1 reference | BH210-13\ipd, 5 hours ago | 1 author, 1 change  
public byte[] GetPicture(int id)

```
{
    var cmd = new SqlCommand("SELECT Document FROM Records WHERE RecordId = @ID", conn);

    cmd.Parameters.AddWithValue("@ID", id);
    return cmd.ExecuteScalar() as byte[];
}
```

```
private void SaveImage_Click(object sender, EventArgs e)
{
    OpenFileDialog dlg = new OpenFileDialog();

    if (dlg.ShowDialog() == DialogResult.OK)
    {
        pictureBox1.Image = Image.FromFile(dlg.FileName);
    }

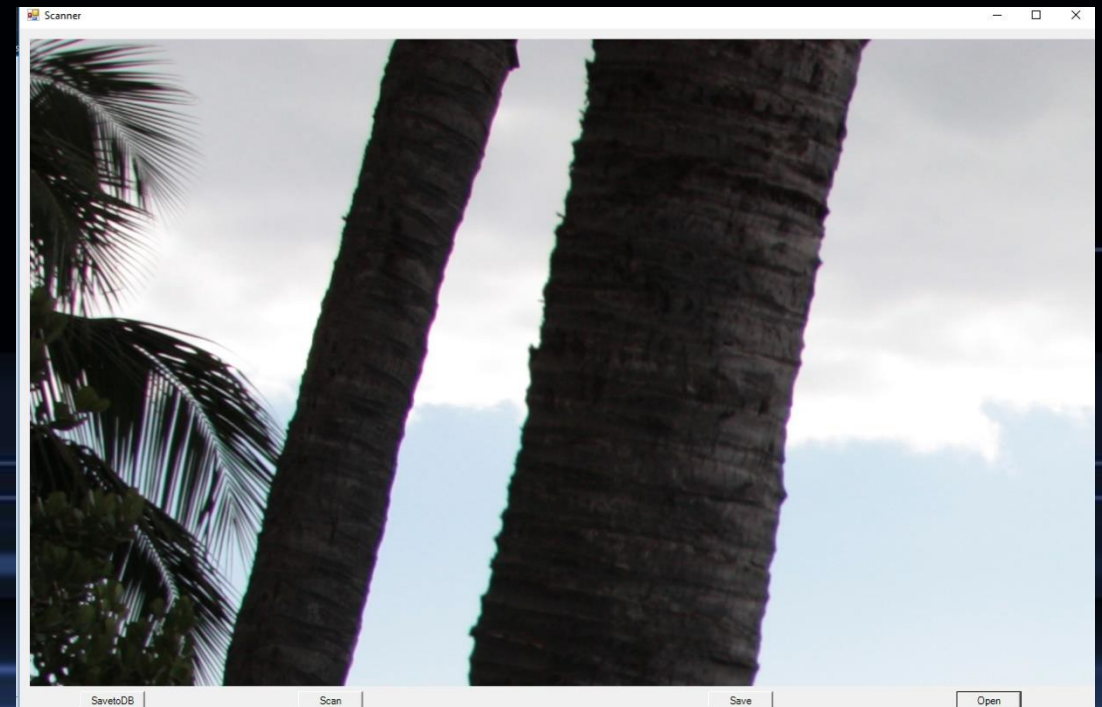
    db = new Database();
    System.Drawing.Image scanpic = pictureBox1.Image;

    // System.Drawing.Image image;
    System.IO.MemoryStream imageStream;
    byte[] imageBytes;

    imageStream = new System.IO.MemoryStream();
    scanpic.Save(imageStream, System.Drawing.Imaging.ImageFormat.Jpeg);
    imageBytes = imageStream.ToArray();
    // VARBINARY(MAX)
    db.AddPictures(imageBytes, 77);
}
```

## ■ Export Scanner Image from DB

```
private void OpenImage_Click(object sender, EventArgs e)
{
    db = new Database();
    Image x = (Bitmap)((new ImageConverter()).ConvertFrom(db.GetPicture(77)));
    pictureBox1.Image = x;
}
```



# Challenges and Solutions

## ■ Chart creation and Linking

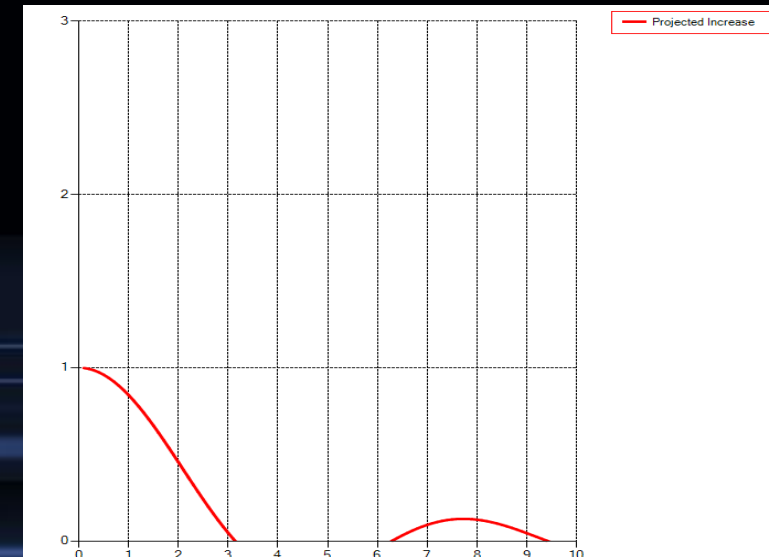
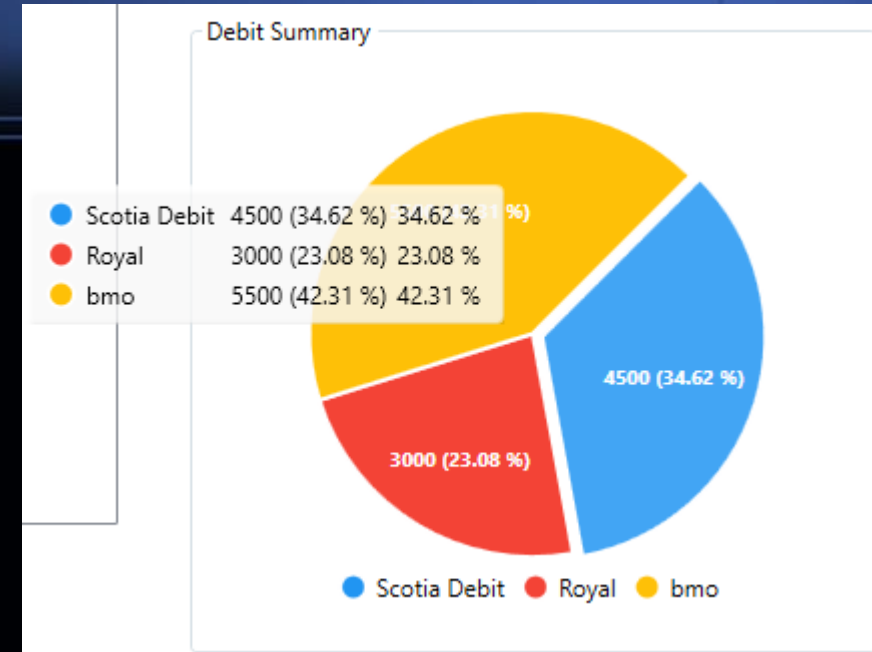
```
public void ShowAccountCart()
{
    Func<ChartPoint, string> labelPoint = chartPoint =>
        string.Format(" {0} ({1:P})", chartPoint.Y, chartPoint.Participat

    foreach (var entry in db.getBalance())
    {
        pcDebitAccouts.Series.Add(new PieSeries
        {
            Title = entry.Key,
            Values = new ChartValues<double> { entry.Value },
            DataLabels = true,
            LabelPoint = labelPoint
        });
        pcDebitAccouts.LegendLocation = LegendLocation.Bottom;
    }
}
```

```
Record rc = new Record();

for (rc.Amount = db.GetBalanceById(77); rc.Amount < MaxX; rc.Amount += 0.1)
{
    chart.Series["Chart"].Points.AddXY(rc.Amount, Math.Sin(rc.Amount) / rc.Amount);
}
chart.Series["Chart"].LegendText = "Projected Increase";

/ legend
chart.Legends.Add("MyLegend");
chart.Legends["MyLegend"].BorderColor = Color.Red;
Controls.Add(this.chart);
```





# Challenges and Solutions

- Functional Api's

```
string url = "";
if (txtSymbol1.Text != "") url += txtSymbol1.Text + "+";
if (txtSymbol2.Text != "") url += txtSymbol2.Text + "+";
if (txtSymbol3.Text != "") url += txtSymbol3.Text + "+";
if (txtSymbol4.Text != "") url += txtSymbol4.Text + "+";
if (url != "")
{
    url = url.Substring(0, url.Length - 1);
    const string base_url =
        "http://download.finance.yahoo.com/d/quotes.csv?s=@&f=s1ld1t1c1";
    url = base_url.Replace("@", url);
    try
    {
        string result = GetWebResponse(url);
        Console.WriteLine(result.Replace("\r\n", "\n"));

        string[] lines = result.Split(
            new char[] { '\r', '\n' },
            StringSplitOptions.RemoveEmptyEntries);
        lbStock1.Content = decimal.Parse(lines[0].Split(',')[1]).ToString("C3");
        lbStock2.Content = decimal.Parse(lines[1].Split(',')[1]).ToString("C3");
        lbStock3.Content = decimal.Parse(lines[2].Split(',')[1]).ToString("C3");
        lbStock4.Content = decimal.Parse(lines[3].Split(',')[1]).ToString("C3");
    }
}
```

## Stocks

GOOG	\$992.000
AAPL	\$159.880
MSFT	\$77.650
AMZN	\$1,006.340

Get prices

## Currencies

EUR

CAD

Amount

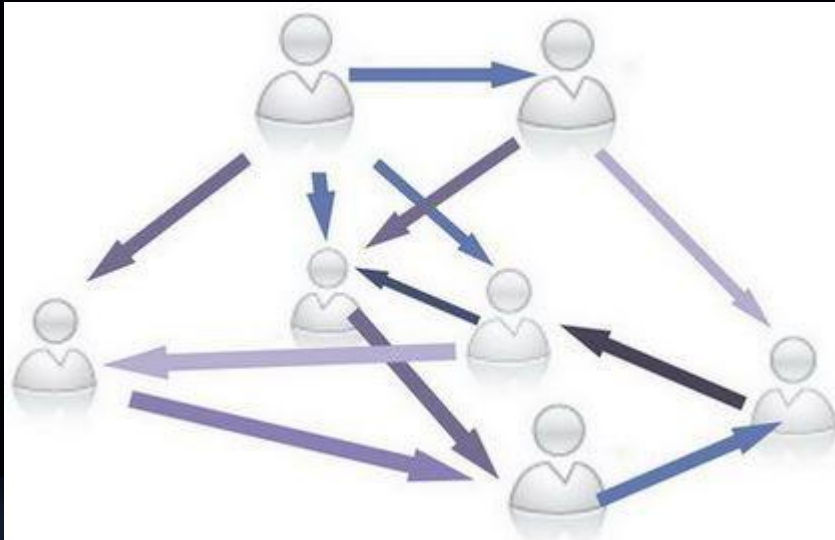
120

177.1200

Convert

# Challenges and Solutions

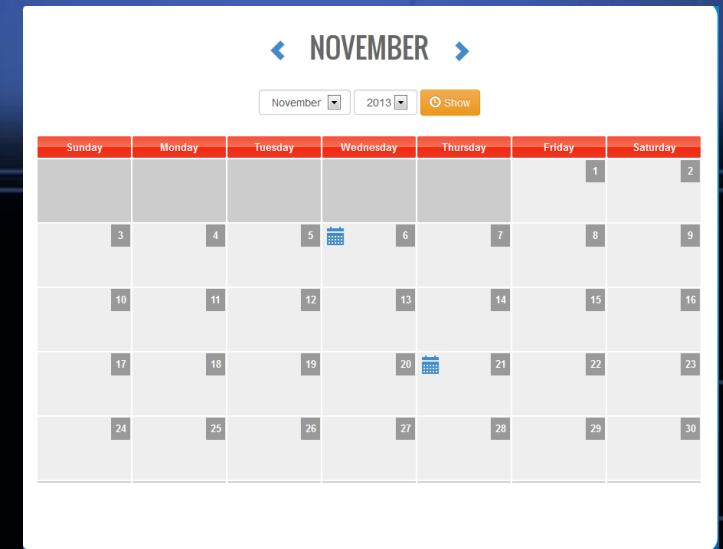
- SQL Many to Many Implementation





# Future Work

- Advanced Search
- ASP.NET Event Calendar
- Improved Charts
- Nicer User Interface



A screenshot of an 'AdvancedSearch' dialog box. It contains several input fields and a search button. The fields are labeled 'Content', 'Account', and 'Category'. The 'From' and 'To' fields are date pickers, both set to '15'. A 'Search' button is located at the bottom right.

# Summary

- Our Completed Goals
- Our Experience
- Conclusion

Thank you!