C# e-mail Client Application

# References

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| OpenPOP.NET | <http://sourceforge.net/projects/hpop/> |
| SMTP from C#.NET | <http://csharp.net-informations.com/communications/csharp-smtp-mail.htm> |
| Settings in C# | <http://msdn.microsoft.com/en-us/library/aa730869(v=vs.80).aspx> |
| Sqlite for C#.NET | <http://system.data.sqlite.org/index.html/doc/trunk/www/downloads.wiki> |
| BackgroundWorker | <http://msdn.microsoft.com/en-us/library/cc221403(v=vs.95).aspx> |
| Symmetric (AES) Encryption | <http://stackoverflow.com/questions/202011/encrypt-decrypt-string-in-net> |
| Asymmetric Encryption | <http://msdn.microsoft.com/en-us/library/5e9ft273.aspx>  <http://www.codeproject.com/Articles/10877/Public-Key-RSA-Encryption-in-C-NET> |
| Click Once | <http://www.codeproject.com/Articles/196537/Deploying-Windows-applications-using-ClickOnce-Vis> |
| Localization | <http://www.dotnetcurry.com/ShowArticle.aspx?ID=174> |
| Accessibility | <http://msdn.microsoft.com/en-us/library/a2wb0asd(v=vs.100).aspx> |

# Requirements

1. Build a Windows Forms based C#.NET e-mail client application using built-in C#.NET functionality and the third party OpenPOP.NET library

2. Provide the possibility to save user settings (password, username, etc.) using C#.NET's in-built settings functionality

3. Provide persistent storage of received e-mails using a lightweight, integrated database (suggest Sqlite)

4. Provide encryption of message bodies, first with Symmetric (AES) encryption and then with Public-Private Key encryption

5. Ensure that the application remains responsive while downloading large quantities of e-mail and while performing other long duration tasks

6. Provide installers for a standard Windows Setup installer and using ClickOnce

7. Provide functionality for printing e-mails

8. Provide user feedback and assistance through use of e.g. Tool Tips

9. Provide a User Interface that can be used in English or Danish and the functionality to switch between these two languages

10. Demonstrate some examples of how the application could be "tailored" to the needs of those with visual impairment

# Objectives (Målepinde)

1: Eleven kan, på et fagligt niveau minimum svarende til MCTS Microsoft .NET Framework 2.0 - Windows-Based Client Development, arbejde med .NET programmering.

2: Eleven kan tilføje og konfigurere Windows Forms, herunder tilføje og konfigurere Windows Forms kontroller og fremstille Event Handlers for Windows Forms og kontroller.

3: Eleven kan udvikle Windows Forms kontroller, og fremstille sammensatte, tilpassede og udvidede Windows Forms kontroller.

4: Eleven kan fremstille og konfigurere menuer.

5: Eleven kan integrere data i Windows Forms applikationer.

6: Eleven kan fremstille og tilføje funktionalitet til en Windows Forms Setup applikation.

7: Eleven kan konfigurere installationen af en Windows Forms applikation ved hjælp af ClickOnce teknologien.

8: Eleven kan anvende formatet XML med baggrund i XML Document Object Model (DOM), herunder læse, skrive og validere XML ved hjælp af klasserne XmlReader class og XmlWriter class.

9: Eleven kan tilføje og konfigurere Multiple-Document Interface (MDI) forms.

10: Eleven kan implementere printnings- og rapporteringsfunktionalitet i en Windows Forms applikation, og tilføje en tilhørende styring af printprocessen ved hjælp af printdialoger.

11: Eleven kan fremstille og tilpasse PrintPreview komponenten.

12: Eleven kan fremstille, konfigurere og brugertilpasse User Assistance kontroller og komponenter.

13: Eleven kan implementere asynkrone metoder.

14: Eleven kan implementere Accessibility Features.

15: Eleven kan håndtere Connections og Transactions.

16: Eleven kan opsætte en baggrundsproces ved hjælp af BackgroundWorker komponenten.

17: Eleven kan fremstille, tilføje, slette og editere data i forbindelse med både et tilsluttet og et afbrudt miljø.

18: Eleven kan implementere Globalization og Localization i en Windows Forms applikation.

19: Eleven kan implementere Data-Bound kontroller.