Developing Bloomberg OAPI with .NET

Year 2019

1. Objectives

General

- Development rules
- Adaptivity
- Professional problematics

Dev

- Excel & VBA
- C#/WPF & POO

Job

- Reports
- Financial calculus

2. Planning : Course #1

Introduction

- Development basics / Minds refreshing
  - 30 minutes

Bloomberg OAPI

- Light presentation
- Operations / Fields / Keywords / Demo
  - 30 minutes

Project

- Launch of the project
  - Groups making
  - Language choice : VBA or C#
  - Talking about

2. Planning : Courses #2 & #3

Course #2

- Project point
  - ~10 minutes per team (2 hours max)
- Explanations about portfolio pricing
  - 25 minutes

Course #3

- Project point
  - ~15 minutes per team
  - Estimate of the final grade

2. Planning : Project milestones

- Launch from 30/01 to 20/03
- Mid point from 13/02 to 06/03
- Final point from 06/03 to 20/03
- Upload closed 22/03 23h55

3. Teams

- 3 members (up to 4 if needed)
- 1 team leader

6. Grades : Points

Mid Point & Final point (each on 10)	
Objectives understanding	4
Done work according to schedule	2
Work quality	3
Teacher mark (binary)	1

6. Grades : Project

Subject	Max Grade
Basic work	**60**
Product report – Qualitative infos	5
Product report – Quantitative infos	15
Portfolio report – Portfolio creation	5
Portfolio report – Qualitative infos	15
Portfolio report – Quantitative infos	20
Presentation	**20**
Visual identity	10
Ergonomy	10
Code quality	**20**
Clean code	10
Global quality & optimizations	10

6. Grades

- **How I make the final grade ?**
  - It is composed by the project grade
- **And points ?**
  - They are basically here to guide you and talk with me about the project, to give you the opportunity to ask me some questions face to face,...
  - They are also made to reward students who worked all along the course, and not only the last 72 hours before the max upload date
  - If you have (mid + final point) average > 7, I round up to next integer

6. Grades

- Data exchanges between groups
  - If I detect any suspect similarities between some works, i meet people who made these works. The end of the meeting will decide which sanctions each group will take

7. Project – Product report

- First and easier report
- Main objectives
  - Get data from Bloomberg with OAPI
  - Display basic data
  - Calculate perfs & volatility

7. Project – Product report

- Get some data from Bloomberg
  - VBA : [Blg Open API Wrapper of Mikael Katajamäki](#)
  - C# : My own wrapper
- Display basic data
  - Name, description, currency, exchange market, …
- Calculate perfs and volatility
  - Perfs and vol array on 1, 3 and 6 months and 1 and 3 years
  - Performance chart
- User parameters
  - Custom time period, chosen by the user
  - Custom financial product, chosen by the user with its ticker or ISIN

7. Project – Portfolio report

- Second and harder project
- Main objectives
  - Optimize multiple calls to Bloomberg
  - Make a first professional approach of finance
  - Learn basics about portfolio pricing

7. Project – Portfolio report

- **Optimize multiple calls to Bloomberg**
  - Have to handle many products in same time and each call to Bloomberg is taking time, so…
- **Make a first professional approach of finance**
  - Work about ergonomy, user-friendly interface but also about important infos into financial markets for an investor
- **Learn basics about portfolio pricing**
  - Calculate portfolio prices with hypothesis of « no buy, no sell », only the market changes impact it