SLOJ

Smart Line Online Judge

Prepared By:

Name	ID	Dep.	Seat NO
• Ahmed Mohsen Nasr Aldeen Gado	20130060	CS	3253
• Mohamad Wassem Nabeil Kadeh	20130603	CS	3207
• Mohammed Mahrous Mahmoud Darwish	20130420	CS	4184
• Ahmed Mohammed Ali Ali	20130074	CS	4114
• Mohammed Raafat Ibrahim Ibrahim	20130383	CS	3260

Agenda

- Introduction
- Our Project
- Motivation
- Project
- Conclusion
- References

Agenda

- **Introduction**
  - Problem Definition
  - Purpose
- Our Project
- Motivation
- Project
- Conclusion
- References

Introduction

Problem Definition

- **General Problem**
  - "Programming is for computer only." Bad mindset
  - Programming is a Science

Problem Definition (Cont.)

- **Special Problem**
  - Programming is NOT writing code only …

    Programming is Solving Problems

Problem Definition (Cont.)

- **So that …**

  Online Judge has appeared

Problem Definition (Cont.)

- **What is Online Judge?**
  - Simply, programmers from all over the world enter into contests or challenges between each other
  - Many of them set the contest and its problems, and the others enter this contest and solve the problems

Purpose

- **Dissemination Programming**
  - Programming is a SCIENCE to learn and teach
  - There is no science nowadays doesn't use computer science and programming somehow

Purpose (Cont.)

- **Self-study Learning**
  - For youth:
    - Job opportunities
    - Science to learn and teach

Purpose (Cont.)

- **Self-study Learning**
  - For anyone:
    - Anyone can enter Computer Science, and program
    - The person who program and solve problems, can solve problems in general, not just in coding

Purpose (Cont.)

- **Academic Education**
  - For kids:
    - Learning programming games instead of playing it only
    - Increasing thinking skills

Purpose (Cont.)

- **Academic Education**
  - For students:
    - Programming is a science to be learnt, and schools, universities, institutes, etc. should teach this science.
    - Increasing their intelligence

Purpose (Cont.)

- **Academic Education**
  - For teachers:
    - Teaching (and learning) new sciences
    - Getting best ways to teach

Agenda

- ~~Introduction~~
- **Our Project**
  - Brief Description
  - Stakeholders of our system
  - Project Plan
  - What is different in our system?
- Motivation
- Project
- Conclusion
- References

Our Project

Brief Description

- Online Judge System that allows:
  - **Problem Setter** to set a **contest** (with its **problems**, **testcases**, etc.)
  - **Solver** enters a **contest** and start **solving problems**

Stakeholders of our system

- Programmers and Developers
- Coders
- Students
- Teachers
- Kids
- Anyone wants to program

Project Plan

- Phase One:
  - Core System
- Phase Two:
  - Academic Education
- Phase Three:
  - Guarantee that the student doesn't cheat

What is different in our system?

- Providing a lot of tools to facilitate to the programmers
- Can be used somehow in Academic Education
- Guarantee that the student doesn’t cheat
- Doesn’t target a specific level

Agenda

- ~~Introduction~~
- ~~Our Project~~
- **Motivation**
  - Why did we choose this project?
  - Language, Tools and Libraries we used
- Project
- Conclusion
- References

Motivation

Why did we choose this project?

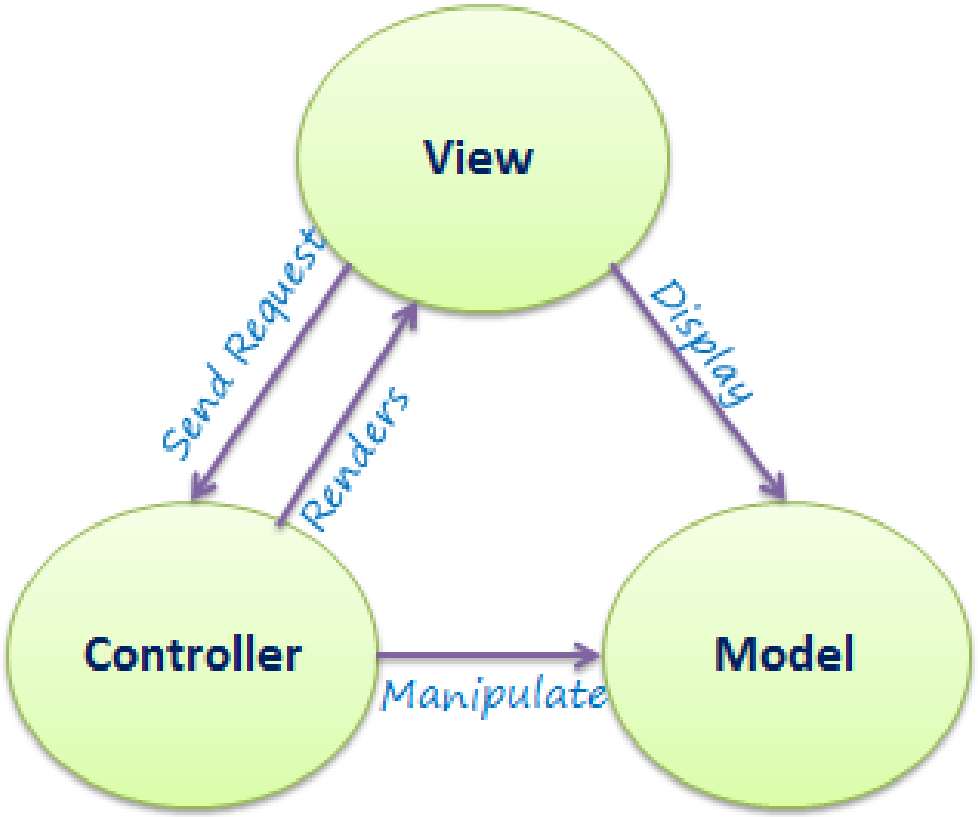
- We aim to disseminate programming as we can
- We have learned from programming a lot and still, so, we want to get honor with teaching programming somehow

Programming language we used

- ASP.NET
- Why?

Methodology we used

- MVC (Model-View-Controller)
- Why?



Tools we used

- Microsoft Visual Studio
- Why?

Tools we used (Cont.)

- Microsoft SQL Server
- Why?

Microsoft®
SQL Server®

Tools we used (Cont.)

- Kendo UI – Telerik
- Why?

Kendo UI®

by Telerik

Libraries we used

- Bootstrap
- Why?

Libraries we used (Cont.)

- jQuery
- Why?

Libraries we used (Cont.)

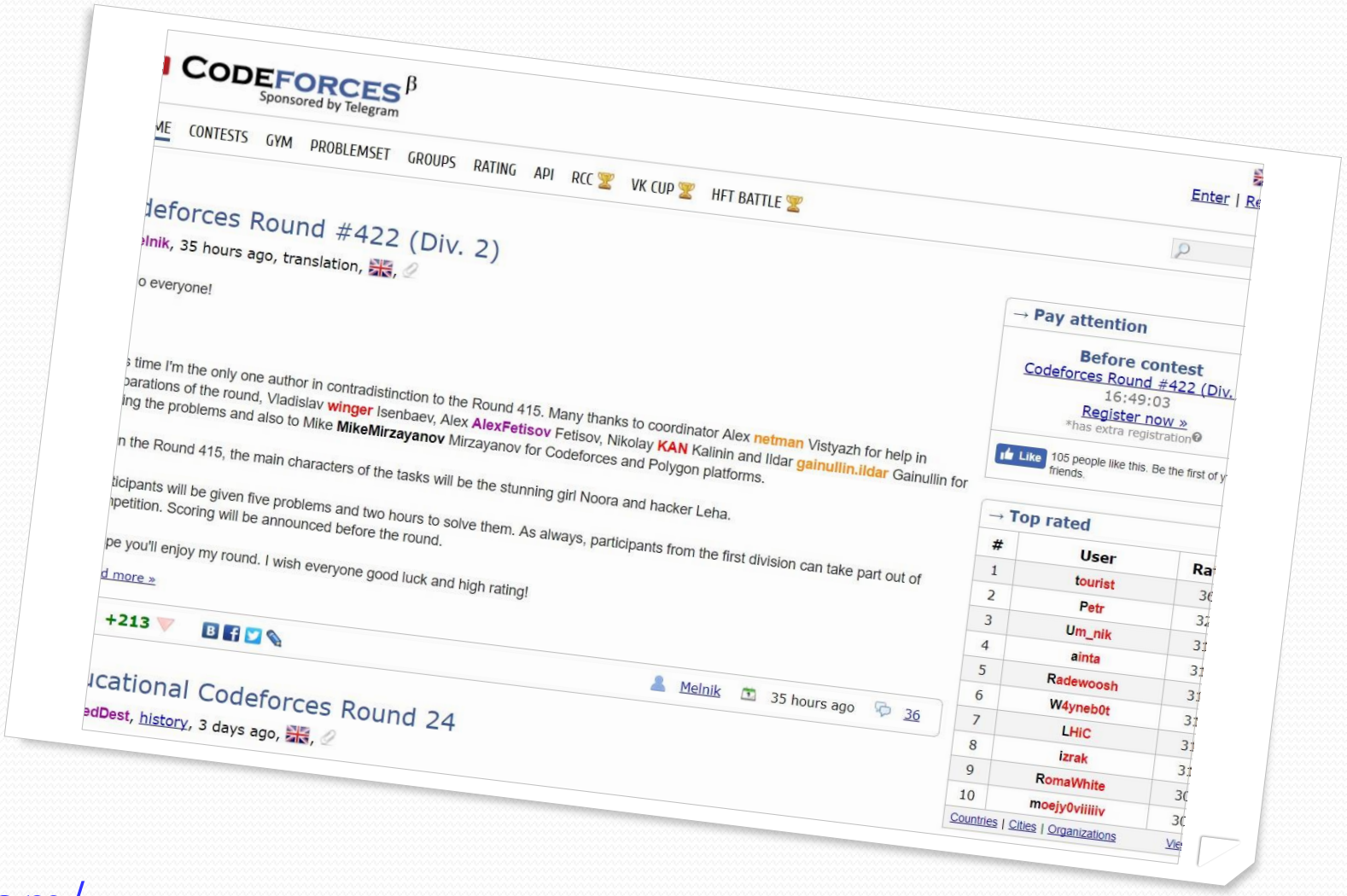
- jQuery UI
- Why?

Agenda

- ~~Introduction~~
- ~~Our Project~~
- ~~Motivation~~
- **Project**
  - In details somehow
  - Similar Ideas
- Conclusion
- References

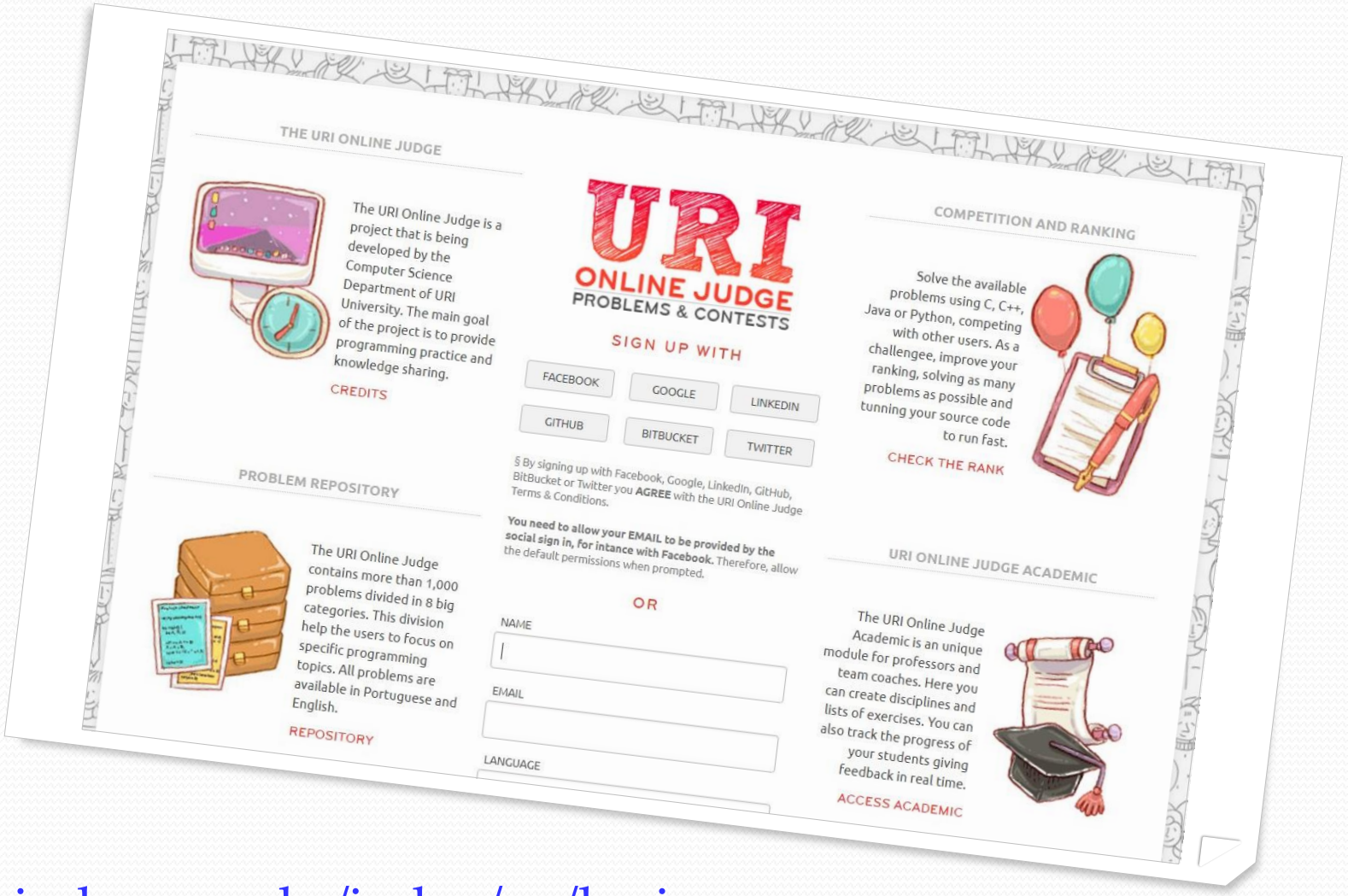
Similar Projects

Codeforces



http://codeforces.com/

URI Online Judge



https://www.urionlinejudge.com.br/judge/en/login

UVa Online Judge

https://uva.onlinejudge.org/

A2 Online Judge

https://a2oj.com/

1 - The practice ladders is a good way to organize your practice and to help others to practice.
2 - Each ladder will consist of a list of problems, some problems might be hidden because you have to solve some other problem(s) first (from the same ladder).
3 - Some ladders might depend on other ladder(s), you have to solve all problems in the other ladder(s) first.
4 - Not everyone can add ladders now, if you would like to be able to add ladders, please send an email to ahmed.aly.tc@gmail.com and describe why you want to be able to add ladders.

Practice Ladders

Join a ladder from the following ladders based on your Codeforces Rating.

ID	Name	Owner	Problems Count	Users Count	Depends On
11	Codeforces Rating < 1300	ahmed_aly	100	2785	
12	1300 <= Codeforces Rating <= 1399	ahmed_aly	100	1620	
13	1400 <= Codeforces Rating <= 1499	ahmed_aly	100	1427	
14	1500 <= Codeforces Rating <= 1599	ahmed_aly	100	1222	
15	1600 <= Codeforces Rating <= 1699	ahmed_aly	100	1020	
16	1700 <= Codeforces Rating <= 1799	ahmed_aly	100	771	
17	1800 <= Codeforces Rating <= 1899	ahmed_aly	100	553	
18	1900 <= Codeforces Rating <= 1999	ahmed_aly	100	462	
19	2000 <= Codeforces Rating <= 2099	ahmed_aly	100	302	
20	2100 <= Codeforces Rating <= 2199	ahmed_aly	100	248	
21	Codeforces Rating >= 2200	ahmed_aly	100	455	

ID	Name	Owner	Problems Count	Users Count	Depends On
1	First Time To Solve	ahmed_aly	5	4279	
2	Little Experience	ahmed_aly	5	1650	
3	The Egyptian Olympiad in Informatics EOI	gammal	25	1296	1
4	Codeforces Div. 2, A	ahmed_aly	100	5546	
5	Codeforces Div. 2, B	ahmed_aly	100	3633	
6	Codeforces Div. 2, C	ahmed_aly	100	3603	
7	Codeforces Div. 2, D	ahmed_aly	100	1794	
8	Codeforces Div. 2, E	ahmed_aly	100	745	

NOTE: This website created by our colleague Ahmed Ali who graduated from Faculty of Computers and Information – Cairo University 2009 and now he is a software engineer in Google

Agenda

- ~~Introduction~~
- ~~Our Project~~
- ~~Motivation~~
- ~~Project~~
- **Conclusion**
  - We hope that …
  - Future Work
  - Thanks to…
  - Any Questions
- References

Conclusion

We hope that …

- We produced a simple software that can help programmers and can disseminate programming
- We contribute in a future science like programming

Future Work

- Simple software which guarantees that student doesn’t cheat

If you don't thank people,

you don't thank ALLAH

Finally, Thanks To …

- Our FCI-H
- Our Supervisors
  - Prof. Atef Ghalwash
  - Dr. Aya Sedky
  - In addition to Ass.Prof. Amal A. Tabl
- Our Team
- Our Colleagues

Any Questions ?

Agenda

- ~~Introduction~~
- ~~Our Project~~
- ~~Motivation~~
- ~~Project~~
- ~~Conclusion~~

- **References**

References

References

- SLOJ Graduation Project Documentation
- Links:
  - https://www.slideshare.net/dawnedrake/making-your-senior-project-presentation
  - https://en.wikipedia.org/wiki/Online_judge
  - https://www.urionlinejudge.com.br/judge/en/login
  - http://codeforces.com/
  - https://uva.onlinejudge.org/
  - https://a2oj.com/

Agenda

- ~~Introduction~~
- ~~Our Project~~
- ~~Motivation~~
- ~~Project~~
- ~~Conclusion~~
- ~~References~~

Thanks