# OJ 可视化监控系统-功能设计文档

Dup4

2020年10月10日

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Start: Ma	r, 17, 2019 12:00:		2019年杭州师范大学第十二届程序设计竞赛								End: Mar, 17, 2019 17:00:00											
Time ela	psed: 05:00:00		Contest has ended!										Time remaining: 00:00:00									
	Edit [Download Rank] [Real Name Mode][Choose Class 国示全部▼]																					
Rank	User	Nick	Score	Solved	Penalty	A	8	С	D	ε	F	G	н		j	к	ů.	М				
Winter	CT0057	2-827-浙江省镇海中学	13	13	1241	7 (1)	11 (1)	154	12	70 (1)	126 (2)	138	18	83 (4)	13	24	218	43				
2	CT0074	2-861-杭州学至中学-3支3余3	13	13	1616	2	29	117	4	188	251 (4)	77 (4)	25	45	3	15 (1)	270	63				
3	CT0249	3-D03-核州学军中学-Silent Sky	12	12	1059	12	10 (2)	72 (1)	13	(2)	223	101	38	77	15 (1)	29	175 Ø3	89				
4	CT0077	2-867-杭州第二中学-杭二阳(	- 11	11	1086	13	58 (2)	180	19	-	(3)	107	40	70 (1)	4	49	265	79				
5	CT0162	3-A67-杭州第二中学-杭二荣队	- 11	-11	1284	5 (1)	69 (2)	150	7	-	289 (14)	107	37	41	7	56 (2)		92				
6	CT0147	2-D57-杭州第二中学-杭二d认	- 11	-11	1289	40 (6)	21 (f)	118	26	(1)	261	158	34	66 (1)	28	49 (1)		123				
7	CT0043	2-A85-杭州学军中学-Frozen Firefox	- 11	-11	1372	11	83	275 (3)	18	-	270 (3)	150	43 (2)	96	17	56 (1)		68				
8	CT0108	2-C41-浙江省温岭中学-报塘 C 题是计数	- 11	-11	1395	21	37 (f)	268	18	236 (6)	(2)	123	33	106	15	43		92				
9	СТ0089	2-C03-浙江省温州中学-空气力学的先驱	10	10	824	5	38	235	8	(6)	-	94	47	65	2	62	(4)	83				
10	CT0134	2-D31-杭州第二中学-杭二A队	10	10	891	2 (1)	61 (7)	187	8	-	(5)	77	36	96	9	44	-	66				
	стогов	*3-871-浙江大学-我们能点带了Miner的女朋友来	10	10	972	7 (2)	40	202	8	(1)	7	122	16	65	6	35 (1)		167				
11	CT0263	3-031-杭州第二中学-杭二 π 队	10	10	1012	0	40	200	4	(3)	(9)	146	12	96 (16)	2	30		58				
12	СТ0050	2-813-杭州学军中学-O(ωγs)	10	10	1026	3	47	298	4	-	7	91	16	37 (2)	1	35 (1)		68				
13	CT0053	2-819-浙江理工大学-[wwx最早时的结	10	10	1117	14 (4)	30	228	6			169	47	112	4	66 (1)		96				
14	CT0157	3-A57-宁波镜海蚊川·书院-rua_rua.!!	10	10	1208	3	81	269	6	(1)	(1)	141	30	182	5	64	(1)	102				
15	CT0234	3-C37-浙江省会院中学-RoyalNeverGiveup	10	10	1840	2 (1)	259	295	5	-	-	157	170	257	8	96 (1)		126				
16	CT0151	3-A45-浙江省余院中学-新疆风景好	10	10	2031	59	242	131	9	(4)		293	83	283	19	115		273				
17	CT0197	3-849-杭州学军中学-nm · DP	9	9	601	17	55 (2)	(12)	5	(2)	(1)	121	80	22 (I)	19	31	(1)	87				

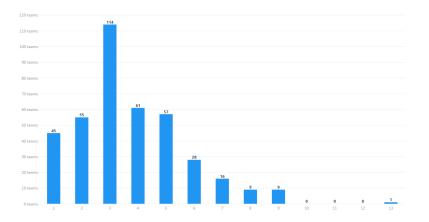
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- ▶ 大数据时代
- ▶ 如何将这些数据直观的展示出来,用于分析一场比赛的情 况?



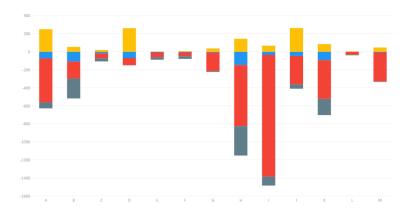
# ▶ 最上方用文字展示 Contest ID、比赛倒计时、参与人数

- ▶ 第二部分展示的是 Judge 的判题情况、选手的提交情况、每 秒钟选手点击情况、首 A 时间
- ▶ 雷达图展示的是 AC 数量和提交数量分布
- 蓝色柱状图展示的是队伍的过题数分布
- 两个饼状图展示的是判题结果类型分布以及交题语言数量分 布
- ▶ 四色相交的柱状图展示的是各颗提交类型分布以及每十分钟 提交类型分布



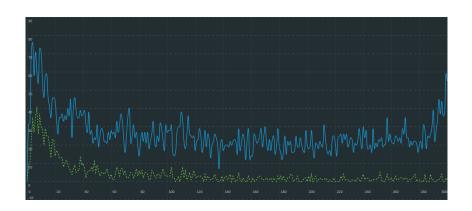
### 队伍过题数统计

- ▶ 这部分展示的是队伍的过题数分布
- ▶ 一支队伍的过题能力是我们比较关心的,它就好比一场考试 中的分数,出题者会比较关心它是否趋向于正态分布

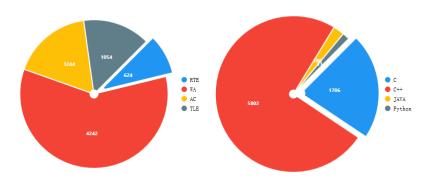


- ▶ 这部分展示的是每道题的判题结果分布
- ▶ 我们分析—道题的时候,从判题结果分布可以看出—点问 题,比方说这一场比赛中的 / 题红色占比特别多,说明坑点 可能较多。

## 每分钟提交量与诵过量

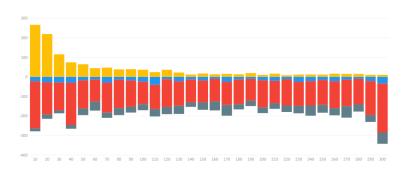


- ▶ 这部分展示的是每分钟的 AC 数以及提交数的折线图
- ▶ 比如这场比赛中,比赛开始时提交数和 AC 数都特别多,说 明可能有很水的签到题存在



# 饼状图

- ▶ 第一张饼状图展示的是所有提交的判题结果类型分布
- ▶ 第二张饼状图展示的是交题语言分布

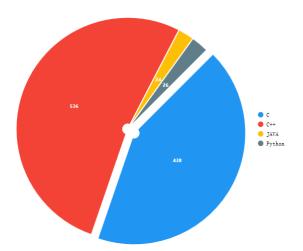


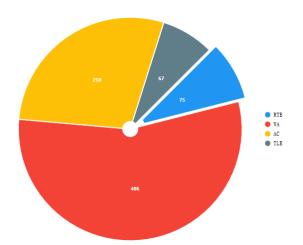
▶ 这部分展示的是每十分钟统计一次的提交类型数量

#### 针对每道题,我们会有如下四种可视化数据:

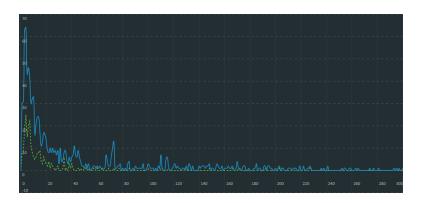
- 1. 提交语言分布
- 2. 提交结果分布
- 3. 一分钟提交量与通过量统计
- 4. 十分钟提交类型统计

# Problem A Little Sub and Applese

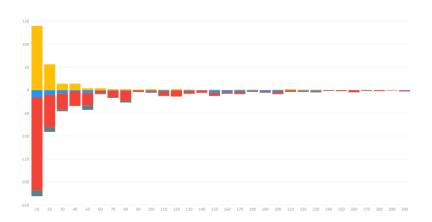


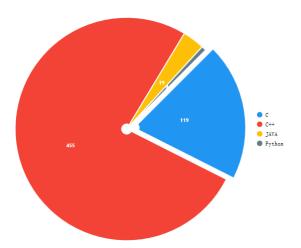


# Problem A Little Sub and Applese

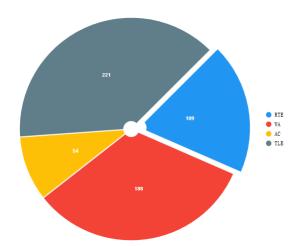


## Problem A Little Sub and Applese

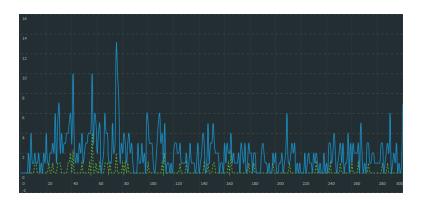




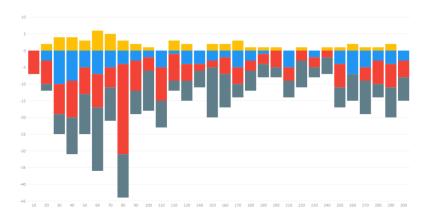
# Problem B Little Sub and Triples



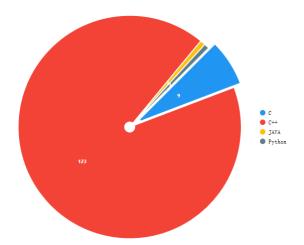
# Problem B Little Sub and Triples



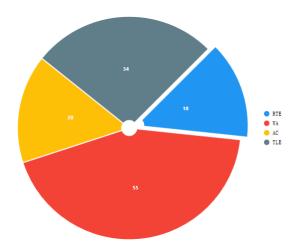
# Problem B Little Sub and Triples



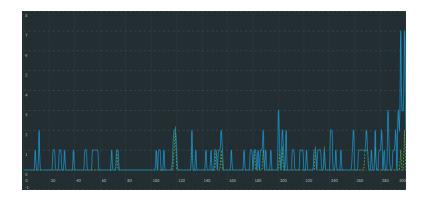
# Problem C Little Sub and Sequence

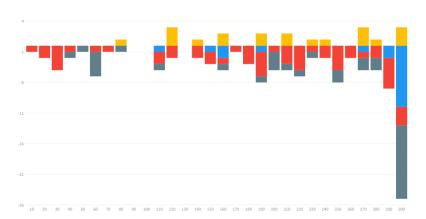


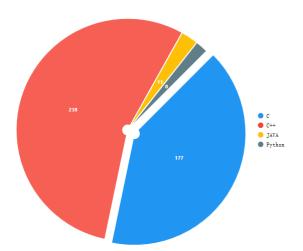
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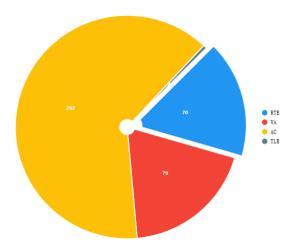


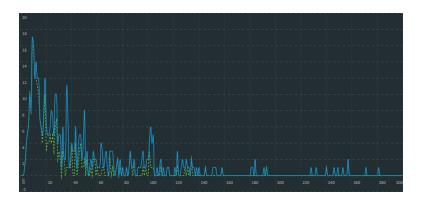
# Problem C Little Sub and Sequence

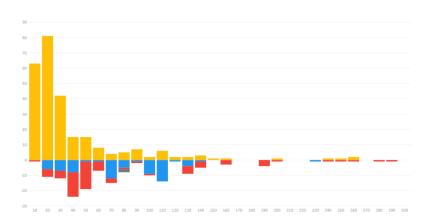




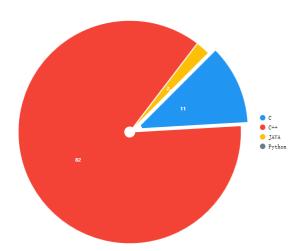


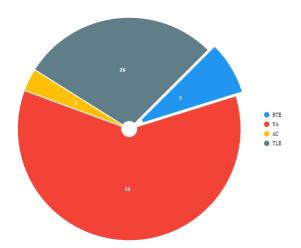




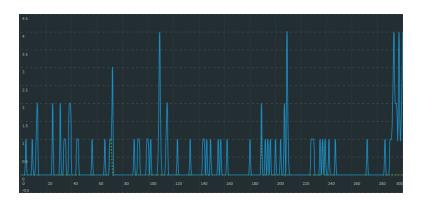


# Problem E Little Sub and Traveling





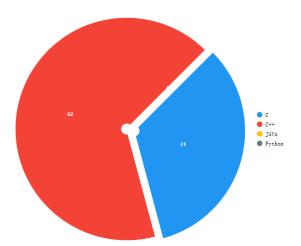
# Problem E Little Sub and Traveling



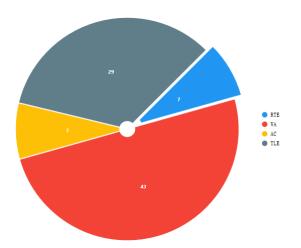
# Problem E Little Sub and Traveling



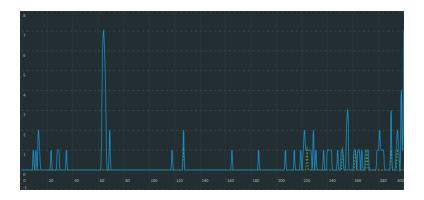
### Problem F Little Sub and Game

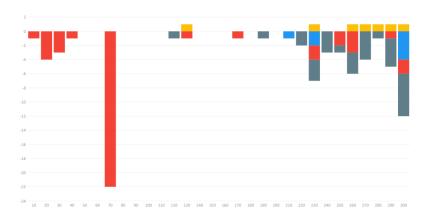


### Problem F Little Sub and Game

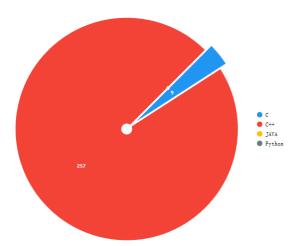


### Problem F Little Sub and Game

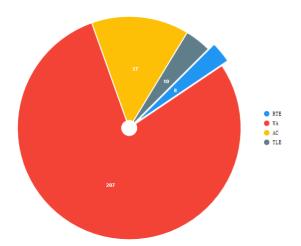




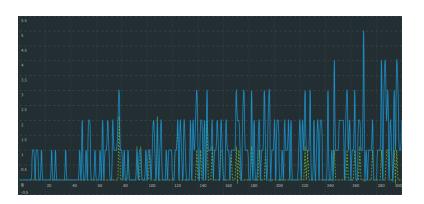
## Problem G Little Sub and Piggybank



## Problem G Little Sub and Piggybank

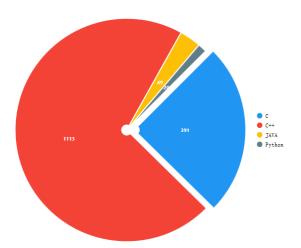


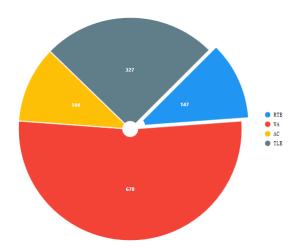
# Problem G Little Sub and Piggybank

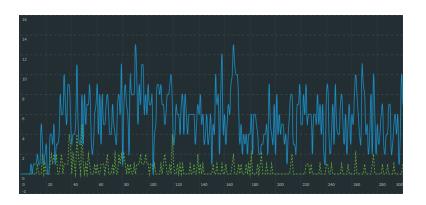


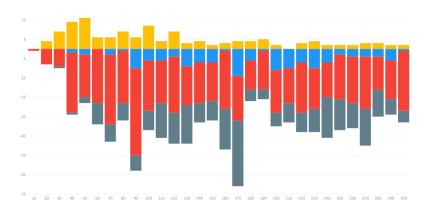


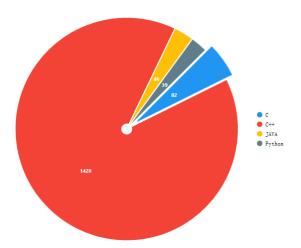


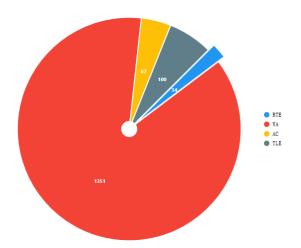


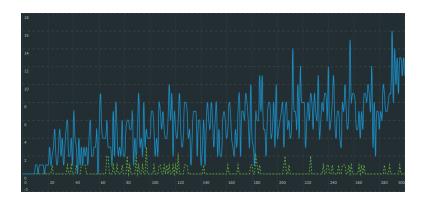






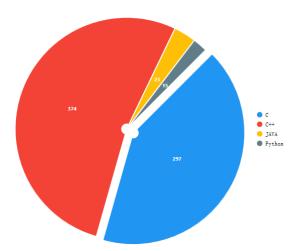


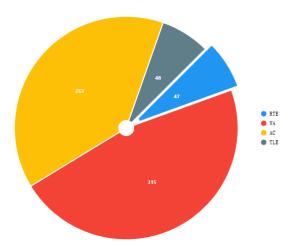


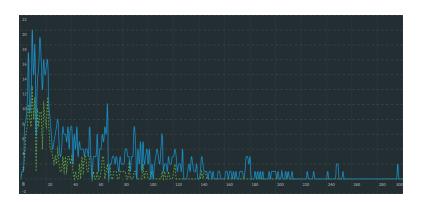


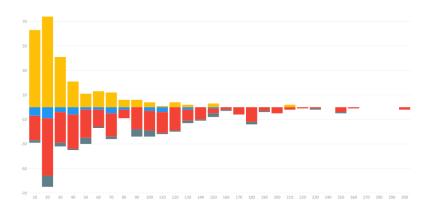


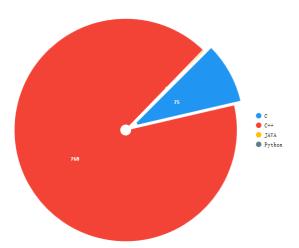




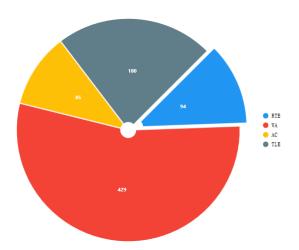




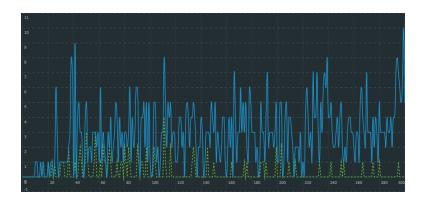




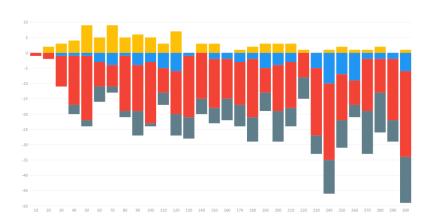
### Problem K Little Sub and Triangles

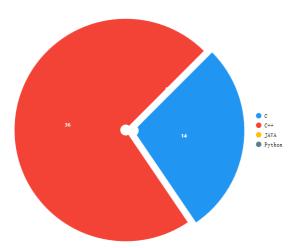


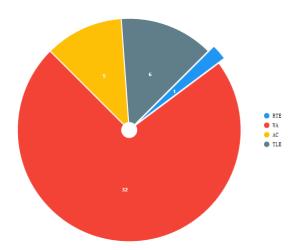
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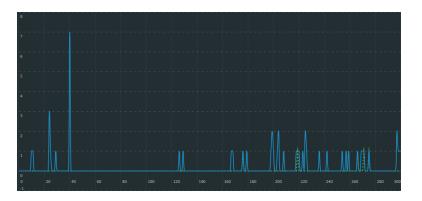


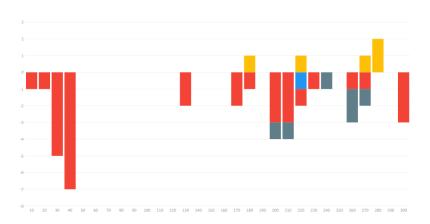
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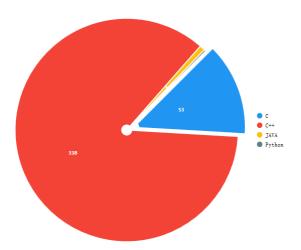




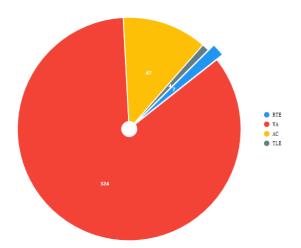








### Problem M Little Sub and Johann



#### Problem M Little Sub and Johann

