Codeforces Online Judge

Prepared by: Mohamed Ayman

Algorithm Engineer at Valeo
Deep Learning Researcher and Teaching Assistant
at The American University in Cairo (AUC)

spring 2020

sw.eng.MohamedAyman@gmail.com

facebook.com/cs.MohamedAyman

linkedin.com/in/cs-MohamedAyman

github.com/cs-MohamedAyman

codeforces.com/profile/Mohamed_Ayman

Codeforces Online Judge – Phase 1.1

Lecture Agenda

We will discuss in this lecture the following topics

1- Basic Operator   [5 problems]

2- Condition   [10 problems]

3- Loop   [20 problems]

4- String   [20 problems]

5- List   [40 problems]

Let's
STARTUP

Lecture Agenda

Section 1: Basic Operator

Section 2: Condition

Section 3: Loop

Section 4: String

Section 5: List

Codeforces - Basic Operator

[01]   CF-Round 340:   http://codeforces.com/problemset/problem/617/A

[02]   CF-Round 304:   http://codeforces.com/problemset/problem/546/A

[03]   CF-Round 395:   http://codeforces.com/problemset/problem/764/A

[04]   CF-Round 107:   http://codeforces.com/problemset/problem/151/A

[05]   CF-Round 256:   http://codeforces.com/problemset/problem/448/A

Codeforces - Basic Operator Solutions

[01] CF-Round 340:   http://codeforces.com/contest/617/submission/26588156

[02] CF-Round 304:   http://codeforces.com/contest/546/submission/26636084

[03] CF-Round 395:   http://codeforces.com/contest/764/submission/26777792

[04] CF-Round 107:   http://codeforces.com/contest/151/submission/30904768

[05] CF-Round 256:   http://codeforces.com/contest/448/submission/30730442

Lecture Agenda

✔ Section 1: Basic Operator

Section 2: Condition

Section 3: Loop

Section 4: String

Section 5: List

Codeforces - Condition

[01]   CF-Round 322:   http://codeforces.com/problemset/problem/581/A

[02]   CF-Round 388:   http://codeforces.com/problemset/problem/749/A

[03]   CF-Round 172:   http://codeforces.com/problemset/problem/281/A

[04]   CF-Round 348:   http://codeforces.com/problemset/problem/669/A

[05]   CF-Round 101:   http://codeforces.com/problemset/problem/141/A

[06]   CF-Round 186:   http://codeforces.com/problemset/problem/313/A

[07]   CF-Round 389:   http://codeforces.com/problemset/problem/752/A

[08]   CF-Round 393:   http://codeforces.com/problemset/problem/760/A

[09]   CF-Round 114:   http://codeforces.com/problemset/problem/168/A

[10]   CF-Round 188:   http://codeforces.com/problemset/problem/318/A

[11]   CF-Round 258:   http://codeforces.com/problemset/problem/451/A

Codeforces – Condition Solutions

[01] CF-Round 322: http://codeforces.com/contest/581/submission/30658545

[02] CF-Round 388: http://codeforces.com/contest/749/submission/26635688

[03] CF-Round 172: http://codeforces.com/contest/281/submission/29076395

[04] CF-Round 348: http://codeforces.com/contest/669/submission/45913066

[05] CF-Round 101: http://codeforces.com/contest/141/submission/29097031

[06] CF-Round 186: http://codeforces.com/contest/313/submission/26970399

[07] CF-Round 389: http://codeforces.com/contest/752/submission/46815558

[08] CF-Round 393: http://codeforces.com/contest/760/submission/46635251

[09] CF-Round 114: http://codeforces.com/contest/168/submission/45913252

[10] CF-Round 188: http://codeforces.com/contest/318/submission/26636360

[11] CF-Round 258: http://codeforces.com/contest/451/submission/26694629

Lecture Agenda

✔ Section 1: Basic Operator

✔ Section 2: Condition

Section 3: Loop

Section 4: String

Section 5: List

Codeforces - Loop

[01]   CF-Round 366:   http://codeforces.com/problemset/problem/705/A

[02]   CF-Round 200:   http://codeforces.com/problemset/problem/344/A

[03]   CF-Round 365:   http://codeforces.com/problemset/problem/703/A

[04]   CF-Round 143:   http://codeforces.com/problemset/problem/231/A

[05]   CF-Round 144:   http://codeforces.com/problemset/problem/233/A

[06]   CF-Round 210:   http://codeforces.com/problemset/problem/361/A

[07]   CF-Round 222:   http://codeforces.com/problemset/problem/378/A

[08]   CF-Round 259:   http://codeforces.com/problemset/problem/454/A

[09]   CF-Round 267:   http://codeforces.com/problemset/problem/467/A

[10]   CF-Round 352:   http://codeforces.com/problemset/problem/672/A

[11]   CF-Round 357:   http://codeforces.com/problemset/problem/681/A

[12]   CF-Round 359:   http://codeforces.com/problemset/problem/686/A

Codeforces - Loop Solutions

[01]   CF-Round 366:   http://codeforces.com/contest/705/submission/30658456

[02]   CF-Round 200:   http://codeforces.com/contest/344/submission/30492430

[03]   CF-Round 365:   http://codeforces.com/contest/703/submission/30699914

[04]   CF-Round 143:   http://codeforces.com/contest/231/submission/30413988

[05]   CF-Round 144:   http://codeforces.com/contest/233/submission/26780994

[06]   CF-Round 210:   http://codeforces.com/contest/361/submission/46033666

[07]   CF-Round 222:   http://codeforces.com/contest/378/submission/30911740

[08]   CF-Round 259:   http://codeforces.com/contest/454/submission/30911329

[09]   CF-Round 267:   http://codeforces.com/contest/467/submission/30447282

[10]   CF-Round 352:   http://codeforces.com/contest/672/submission/30940717

[11]   CF-Round 357:   http://codeforces.com/contest/681/submission/30913857

[12]   CF-Round 359:   http://codeforces.com/contest/686/submission/30909001

© Prepared by: Mohamed Ayman

Codeforces - Loop

[13]   CF-Round 377:   http://codeforces.com/problemset/problem/732/A

[14]   CF-Round 386:   http://codeforces.com/problemset/problem/746/A

[15]   CF-Round 105:   http://codeforces.com/problemset/problem/148/A

[16]   CF-Round 152:   http://codeforces.com/problemset/problem/248/A

[17]   CF-Round 166:   http://codeforces.com/problemset/problem/271/A

[18]   CF-Round 247:   http://codeforces.com/problemset/problem/431/A

[19]   CF-Round 270:   http://codeforces.com/problemset/problem/472/A

[20]   CF-Round 280:   http://codeforces.com/problemset/problem/492/A

[21]   CF-Round 400:   http://codeforces.com/problemset/problem/776/A

Codeforces - Loop Solutions

[13] CF-Round 377: http://codeforces.com/contest/732/submission/26767349

[14] CF-Round 386: http://codeforces.com/contest/746/submission/26780304

[15] CF-Round 105: http://codeforces.com/contest/148/submission/26765348

[16] CF-Round 152: http://codeforces.com/contest/248/submission/46576495

[17] CF-Round 166: http://codeforces.com/contest/271/submission/30447943

[18] CF-Round 247: http://codeforces.com/contest/431/submission/30907042

[19] CF-Round 270: http://codeforces.com/contest/472/submission/26765450

[20] CF-Round 280: http://codeforces.com/contest/492/submission/30658221

[21] CF-Round 400: http://codeforces.com/contest/776/submission/46822791

Lecture Agenda

✔ Section 1: Basic Operator

✔ Section 2: Condition

✔ Section 3: Loop

Section 4: String

Section 5: List

Codeforces - String

[01] CF-Round 369:   http://codeforces.com/problemset/problem/711/A

[02] CF-Round 374:   http://codeforces.com/problemset/problem/721/A

[03] CF-Round 379:   http://codeforces.com/problemset/problem/734/A

[04] CF-Round 162:   http://codeforces.com/problemset/problem/265/A

[05] CF-Round 163:   http://codeforces.com/problemset/problem/266/A

[06] CF-Round 225:   http://codeforces.com/problemset/problem/384/A

[07] CF-Round 253:   http://codeforces.com/problemset/problem/443/A

[08] CF-Round 343:   http://codeforces.com/problemset/problem/629/A

[09] CF-Round 360:   http://codeforces.com/problemset/problem/688/A

[10] CF-Round 376:   http://codeforces.com/problemset/problem/731/A

[11] CF-Round 127:   http://codeforces.com/problemset/problem/202/A

[12] CF-Round 173:   http://codeforces.com/problemset/problem/282/A

Codeforces - String Solutions

[01]   CF-Round 369:   http://codeforces.com/contest/711/submission/30697842

[02]   CF-Round 374:   http://codeforces.com/contest/721/submission/30743838

[03]   CF-Round 379:   http://codeforces.com/contest/734/submission/29097262

[04]   CF-Round 162:   http://codeforces.com/contest/265/submission/46198607

[05]   CF-Round 163:   http://codeforces.com/contest/266/submission/30446704

[06]   CF-Round 225:   http://codeforces.com/contest/384/submission/30940510

[07]   CF-Round 253:   http://codeforces.com/contest/443/submission/46654675

[08]   CF-Round 343:   http://codeforces.com/contest/629/submission/46636284

[09]   CF-Round 360:   http://codeforces.com/contest/688/submission/30910256

[10]   CF-Round 376:   http://codeforces.com/contest/731/submission/29097590

[11]   CF-Round 127:   http://codeforces.com/contest/202/submission/29100009

[12]   CF-Round 173:   http://codeforces.com/contest/282/submission/30414143

Codeforces - String

Codeforces - String Solutions

[13] CF-Round 197: http://codeforces.com/contest/339/submission/29076259

[14] CF-Round 265: http://codeforces.com/contest/465/submission/46204107

[15] CF-Round 295: http://codeforces.com/contest/520/submission/30548297

[16] CF-Round 301: http://codeforces.com/contest/540/submission/30658906

[17] CF-Round 309: http://codeforces.com/contest/554/submission/46205751

[18] CF-Round 347: http://codeforces.com/contest/664/submission/26638696

[19] CF-Round 385: http://codeforces.com/contest/745/submission/29098051

[20] CF-Round 397: http://codeforces.com/contest/765/submission/46815188

[21] CF-Round 104: http://codeforces.com/contest/146/submission/41906498

[22] CF-Round 189: http://codeforces.com/contest/320/submission/30938111

Lecture Agenda

✔ Section 1: Basic Operator

✔ Section 2: Condition

✔ Section 3: Loop

✔ Section 4: String

Section 5: List

Codeforces - List

[01] CF-Round 161: http://codeforces.com/problemset/problem/263/A

[02] CF-Round 289: http://codeforces.com/problemset/problem/509/A

[03] CF-Round 330: http://codeforces.com/problemset/problem/595/A

[04] CF-Round 355: http://codeforces.com/problemset/problem/677/A

[05] CF-Round 392: http://codeforces.com/problemset/problem/758/A

[06] CF-Round 141: http://codeforces.com/problemset/problem/228/A

[07] CF-Round 146: http://codeforces.com/problemset/problem/236/A

[08] CF-Round 156: http://codeforces.com/problemset/problem/255/A

[09] CF-Round 160: http://codeforces.com/problemset/problem/262/A

[10] CF-Round 164: http://codeforces.com/problemset/problem/268/A

[11] CF-Round 223: http://codeforces.com/problemset/problem/381/A

[12] CF-Round 243: http://codeforces.com/problemset/problem/426/A

[13] CF-Round 244: http://codeforces.com/problemset/problem/427/A

Codeforces – List Solutions

[01] CF-Round 161: http://codeforces.com/contest/263/submission/30446917

[02] CF-Round 289: http://codeforces.com/contest/509/submission/30698678

[03] CF-Round 330: http://codeforces.com/contest/595/submission/46060478

[04] CF-Round 355: http://codeforces.com/contest/677/submission/30658065

[05] CF-Round 392: http://codeforces.com/contest/758/submission/30733525

[06] CF-Round 141: http://codeforces.com/contest/228/submission/30546158

[07] CF-Round 146: http://codeforces.com/contest/236/submission/46646751

[08] CF-Round 156: http://codeforces.com/contest/255/submission/30936641

[09] CF-Round 160: http://codeforces.com/contest/262/submission/46012240

[10] CF-Round 164: http://codeforces.com/contest/268/submission/30492491

[11] CF-Round 223: http://codeforces.com/contest/381/submission/37743183

[12] CF-Round 243: http://codeforces.com/contest/426/submission/46485179

[13] CF-Round 244: http://codeforces.com/contest/427/submission/30679886

Codeforces - List

[14] CF-Round 290:   http://codeforces.com/problemset/problem/510/A

[15] CF-Round 338:   http://codeforces.com/problemset/problem/615/A

[16] CF-Round 364:   http://codeforces.com/problemset/problem/701/A

[17] CF-Round 372:   http://codeforces.com/problemset/problem/716/A

[18] CF-Round 375:   http://codeforces.com/problemset/problem/723/A

[19] CF-Round 103:   http://codeforces.com/problemset/problem/144/A

[20] CF-Round 109:   http://codeforces.com/problemset/problem/155/A

[21] CF-Round 170:   http://codeforces.com/problemset/problem/278/A

[22] CF-Round 178:   http://codeforces.com/problemset/problem/294/A

[23] CF-Round 192:   http://codeforces.com/problemset/problem/330/A

[24] CF-Round 235:   http://codeforces.com/problemset/problem/401/A

[25] CF-Round 239:   http://codeforces.com/problemset/problem/408/A

[26] CF-Round 240:   http://codeforces.com/problemset/problem/415/A

Codeforces - List Solutions

[14] CF-Round 290: http://codeforces.com/contest/510/submission/30547200

[15] CF-Round 338: http://codeforces.com/contest/615/submission/30904864

[16] CF-Round 364: http://codeforces.com/contest/701/submission/30744434

[17] CF-Round 372: http://codeforces.com/contest/716/submission/30733627

[18] CF-Round 375: http://codeforces.com/contest/723/submission/30658510

[19] CF-Round 103: http://codeforces.com/contest/144/submission/30492021

[20] CF-Round 109: http://codeforces.com/contest/155/submission/30658351

[21] CF-Round 170: http://codeforces.com/contest/278/submission/46573525

[22] CF-Round 178: http://codeforces.com/contest/294/submission/46573453

[23] CF-Round 192: http://codeforces.com/contest/330/submission/30906958

[24] CF-Round 235: http://codeforces.com/contest/401/submission/30940153

[25] CF-Round 239: http://codeforces.com/contest/408/submission/46510584

[26] CF-Round 240: http://codeforces.com/contest/415/submission/46485661

Codeforces - List

[27] CF-Round 246: http://codeforces.com/problemset/problem/432/A

[28] CF-Round 255: http://codeforces.com/problemset/problem/447/A

[29] CF-Round 279: http://codeforces.com/problemset/problem/490/A

[30] CF-Round 351: http://codeforces.com/problemset/problem/673/A

[31] CF-Round 356: http://codeforces.com/problemset/problem/680/A

[32] CF-Round 370: http://codeforces.com/problemset/problem/712/A

[33] CF-Round 111: http://codeforces.com/problemset/problem/160/A

[34] CF-Round 129: http://codeforces.com/problemset/problem/205/A

[35] CF-Round 132: http://codeforces.com/problemset/problem/215/A

[36] CF-Round 142: http://codeforces.com/problemset/problem/230/A

[37] CF-Round 150: http://codeforces.com/problemset/problem/244/A

[38] CF-Round 167: http://codeforces.com/problemset/problem/272/A

[39] CF-Round 168: http://codeforces.com/problemset/problem/275/A

[40] CF-Round 196: http://codeforces.com/problemset/problem/337/A

Codeforces - List Solutions

[27] CF-Round 246: http://codeforces.com/contest/432/submission/30659002

[28] CF-Round 255: http://codeforces.com/contest/447/submission/46816841

[29] CF-Round 279: http://codeforces.com/contest/490/submission/30727854

[30] CF-Round 351: http://codeforces.com/contest/673/submission/46357746

[31] CF-Round 356: http://codeforces.com/contest/680/submission/46357145

[32] CF-Round 370: http://codeforces.com/contest/712/submission/46355311

[33] CF-Round 111: http://codeforces.com/contest/160/submission/30446834

[34] CF-Round 129: http://codeforces.com/contest/205/submission/46587853

[35] CF-Round 132: http://codeforces.com/contest/215/submission/46577345

[36] CF-Round 142: http://codeforces.com/contest/230/submission/30550539

[37] CF-Round 150: http://codeforces.com/contest/244/submission/46576797

[38] CF-Round 167: http://codeforces.com/contest/272/submission/26967540

[39] CF-Round 168: http://codeforces.com/contest/275/submission/46576227

[40] CF-Round 196: http://codeforces.com/contest/337/submission/30447818

Lecture Agenda

✔ Section 1: Basic Operator

✔ Section 2: Condition

✔ Section 3: Loop

✔ Section 4: String

✔ Section 5: List