Python Programming Language

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Python Basics and Functions Practice

Lecture Agenda

We will discuss in this lecture the following topics

1- Input/Output [75 problems]

2- Basic Operator [90 problems]

3- Condition [35 problems]

4- Loop [60 problems]

5- Function [60 problems]


Let's
START UP

Lecture Agenda

Section 1: Input/Output

Section 2: Basic Operator

Section 3: Condition

Section 4: Loop

Section 5: Function

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[03] https://www.hackerrank.com/challenges/fp-hello-world-n-times/problem
[04] https://www.hackerrank.com/challenges/fp-list-replication/problem
[05] https://www.hackerrank.com/challenges/fp-filter-array/problem
[06] https://www.hackerrank.com/challenges/fp-filter-positions-in-a-list/problem
[07] https://www.hackerrank.com/challenges/fp-array-of-n-elements/problem
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[09] https://www.hackerrank.com/challenges/fp-sum-of-odd-elements/problem
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[11] https://www.hackerrank.com/challenges/fp-update-list/problem
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[13] https://www.hackerrank.com/challenges/area-under-curves-and-volume-of-revolving-a-curv/problem
[14] https://www.hackerrank.com/challenges/lambda-calculus-reductions-1/problem
[15] https://www.hackerrank.com/challenges/lambda-calculus-reductions-2/problem
[16] https://www.hackerrank.com/challenges/lambda-calculus-getting-started/problem

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[17] https://www.hackerrank.com/challenges/lambda-calculus-understanding-the-syntax/problem

[18] https://www.hackerrank.com/challenges/lambda-calculus-evaluate-the-expression/problem

[19] https://www.hackerrank.com/challenges/functions-or-not/problem

[20] https://www.hackerrank.com/challenges/lambda-march-compute-the-perimeter-of-a-polygon/problem

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[24] https://www.hackerrank.com/challenges/lambda-calculus-evaluate-the-expression-1/problem

[25] https://www.hackerrank.com/challenges/lambda-calculus-evaluate-the-expression-2/problem

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[48] https://www.hackerearth.com/practice/basic-programming/input-output/basics-of-input-output/practice-problems/algorithm/make-all-equal-90a21ab2/

Lecture Agenda

- ✔ Section 1: Input/Output
- **Section 2: Basic Operator**
- Section 3: Condition
- Section 4: Loop
- Section 5: Function

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
[06] CF-Round 327: http://codeforces.com/problemset/problem/591/A
[07] CF-Round 332: http://codeforces.com/problemset/problem/599/A
[08] CF-Round 125: http://codeforces.com/problemset/problem/199/A
[09] CF-Round 350: http://codeforces.com/problemset/problem/670/A
[10] CF-Round 123: http://codeforces.com/problemset/problem/195/A
[11] CF-Round 138: http://codeforces.com/problemset/problem/224/A
[12] CF-Round 277: http://codeforces.com/problemset/problem/486/A
[13] CF-Round 266: http://codeforces.com/problemset/problem/466/A
[14] CF-Round 133: http://codeforces.com/problemset/problem/216/A
[15] CF-Round 198: http://codeforces.com/problemset/problem/340/A

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[03] https://www.hackerearth.com/practice/basic-programming/operators/basics-of-operators/practice-problems/algorithm/yet-another-partition-problem/

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[05] https://www.hackerearth.com/practice/basic-programming/complexity-analysis/time-and-space-complexity/practice-problems/algorithm/vowel-game-f1a1047c/

[06] https://www.hackerearth.com/practice/basic-programming/operators/basics-of-operators/practice-problems/algorithm/let-us-understand-computer-78476e7a/

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[02] https://www.hackerearth.com/practice/basic-programming/bit-manipulation/basics-of-bit-manipulation/practice-problems/algorithm/a-95/
[03] https://www.hackerearth.com/practice/basic-programming/bit-manipulation/basics-of-bit-manipulation/practice-problems/algorithm/mystery-31/
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[07] https://www.hackerearth.com/practice/basic-programming/bit-manipulation/basics-of-bit-manipulation/practice-problems/algorithm/hihi-and-crazy-bits/
[08] https://www.hackerearth.com/practice/basic-programming/bit-manipulation/basics-of-bit-manipulation/practice-problems/algorithm/subham-and-binary-strings/
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[66] https://www.hackerearth.com/practice/basic-programming/bit-manipulation/basics-of-bit-manipulation/practice-problems/algorithm/samu-and-her-birthday-party-1/
[67] https://www.hackerearth.com/practice/basic-programming/bit-manipulation/basics-of-bit-manipulation/practice-problems/algorithm/monk-and-binary-array-1/
[68] https://www.hackerearth.com/practice/basic-programming/bit-manipulation/basics-of-bit-manipulation/practice-problems/algorithm/substring-queries/
[69] https://www.hackerearth.com/practice/basic-programming/bit-manipulation/basics-of-bit-manipulation/practice-problems/algorithm/chandan-and-balanced-strings/

Lecture Agenda

- ✔ Section 1: Input/Output
- ✔ Section 2: Basic Operator
- **Section 3: Condition**
- Section 4: Loop
- Section 5: Function

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
[12] CF-Round 285: http://codeforces.com/problemset/problem/501/A
[13] CF-Round 337: http://codeforces.com/problemset/problem/610/A
[14] CF-Round 362: http://codeforces.com/problemset/problem/697/A
[15] CF-Round 396: http://codeforces.com/problemset/problem/766/A
[16] CF-Round 195: http://codeforces.com/problemset/problem/336/A
[17] CF-Round 206: http://codeforces.com/problemset/problem/355/A

Codeforces - Condition

[18] CF-Round 274: http://codeforces.com/problemset/problem/479/A
[19] CF-Round 292: http://codeforces.com/problemset/problem/515/A
[20] CF-Round 324: http://codeforces.com/problemset/problem/584/A
[21] CF-Round 346: http://codeforces.com/problemset/problem/659/A
[22] CF-Round 349: http://codeforces.com/problemset/problem/667/A
[23] CF-Round 353: http://codeforces.com/problemset/problem/675/A
[24] CF-Round 371: http://codeforces.com/problemset/problem/714/A
[25] CF-Round 394: http://codeforces.com/problemset/problem/761/A
[26] CF-Round 217: http://codeforces.com/problemset/problem/370/A
[27] CF-Round 273: http://codeforces.com/problemset/problem/478/A
[28] CF-Round 120: http://codeforces.com/problemset/problem/190/A
[29] CF-Round 261: http://codeforces.com/problemset/problem/459/A
[30] CF-Round 140: http://codeforces.com/problemset/problem/227/A
[31] CF-Round 171: http://codeforces.com/problemset/problem/279/A
[32] CF-Round 124: http://codeforces.com/problemset/problem/197/A
[33] CF-Round 100: http://codeforces.com/problemset/problem/140/A
[34] CF-Round 342: http://codeforces.com/problemset/problem/625/A

Lecture Agenda

- ✔ Section 1: Input/Output
- ✔ Section 2: Basic Operator
- ✔ Section 3: Condition
- **Section 4: Loop**
- Section 5: Function

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
[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

Codeforces - Loop

[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
[22] CF-Round 122: http://codeforces.com/problemset/problem/194/A
[23] CF-Round 131: http://codeforces.com/problemset/problem/214/A
[24] CF-Round 136: http://codeforces.com/problemset/problem/221/A
[25] CF-Round 151: http://codeforces.com/problemset/problem/246/A
[26] CF-Round 169: http://codeforces.com/problemset/problem/276/A
[27] CF-Round 194: http://codeforces.com/problemset/problem/334/A
[28] CF-Round 262: http://codeforces.com/problemset/problem/460/A
[29] CF-Round 320: http://codeforces.com/problemset/problem/579/A
[30] CF-Round 326: http://codeforces.com/problemset/problem/588/A
[31] CF-Round 383: http://codeforces.com/problemset/problem/742/A
[32] CF-Round 387: http://codeforces.com/problemset/problem/747/A
[33] CF-Round 175: http://codeforces.com/problemset/problem/285/A
[34] CF-Round 177: http://codeforces.com/problemset/problem/289/A

Codeforces - Loop

[35] CF-Round 190: http://codeforces.com/problemset/problem/322/A
[36] CF-Round 214: http://codeforces.com/problemset/problem/366/A
[37] CF-Round 272: http://codeforces.com/problemset/problem/476/A
[38] CF-Round 275: http://codeforces.com/problemset/problem/483/A
[39] CF-Round 296: http://codeforces.com/problemset/problem/527/A
[40] CF-Round 298: http://codeforces.com/problemset/problem/534/A
[41] CF-Round 308: http://codeforces.com/problemset/problem/552/A
[42] CF-Round 319: http://codeforces.com/problemset/problem/577/A
[43] CF-Round 345: http://codeforces.com/problemset/problem/651/A
[44] CF-Round 367: http://codeforces.com/problemset/problem/706/A
[45] CF-Round 102: http://codeforces.com/problemset/problem/143/A
[46] CF-Round 128: http://codeforces.com/problemset/problem/203/A
[47] CF-Round 139: http://codeforces.com/problemset/problem/225/A
[48] CF-Round 148: http://codeforces.com/problemset/problem/239/A
[49] CF-Round 165: http://codeforces.com/problemset/problem/270/A
[50] CF-Round 236: http://codeforces.com/problemset/problem/402/A
[51] CF-Round 358: http://codeforces.com/problemset/problem/682/A

Codeforces - Loop

[52] CF-Round 119: http://codeforces.com/problemset/problem/189/A
[53] CF-Round 121: http://codeforces.com/problemset/problem/192/A
[54] CF-Round 183: http://codeforces.com/problemset/problem/304/A
[55] CF-Round 381: http://codeforces.com/problemset/problem/740/A
[56] CF-Round 115: http://codeforces.com/problemset/problem/175/A
[57] CF-Round 158: http://codeforces.com/problemset/problem/260/A
[58] CF-Round 174: http://codeforces.com/problemset/problem/284/A
[59] CF-Round 276: http://codeforces.com/problemset/problem/485/A
[60] CF-Round 281: http://codeforces.com/problemset/problem/493/A
[61] CF-Round 315: http://codeforces.com/problemset/problem/569/A
[62] CF-Round 339: http://codeforces.com/problemset/problem/614/A
[63] CF-Round 220: http://codeforces.com/problemset/problem/374/A

Lecture Agenda

- ✔ Section 1: Input/Output
- ✔ Section 2: Basic Operator
- ✔ Section 3: Condition
- ✔ Section 4: Loop
- **Section 5: Function**

HackerRank - Functional Structures

[01] https://www.hackerrank.com/challenges/lists-and-gcd/problem
[02] https://www.hackerrank.com/challenges/swap-nodes/problem
[03] https://www.hackerrank.com/challenges/valid-bst/problem
[04] https://www.hackerrank.com/challenges/prison-transport/problem
[05] https://www.hackerrank.com/challenges/kmp-fp/problem
[06] https://www.hackerrank.com/challenges/john-and-fences/problem
[07] https://www.hackerrank.com/challenges/range-minimum-query/problem
[08] https://www.hackerrank.com/challenges/tree-manager/problem
[09] https://www.hackerrank.com/challenges/matrix-rotation/problem
[10] https://www.hackerrank.com/challenges/stocks-prediction/problem
[11] https://www.hackerrank.com/challenges/fighting-armies/problem
[12] https://www.hackerrank.com/challenges/order-exercises/problem
[13] https://www.hackerrank.com/challenges/mirko-at-construction-site/problem

HackerRank - Memoization

[01] https://www.hackerrank.com/challenges/pentagonal-numbers/problem
[02] https://www.hackerrank.com/challenges/fibonacci-fp/problem
[03] https://www.hackerrank.com/challenges/different-ways-fp/problem
[04] https://www.hackerrank.com/challenges/number-of-binary-search-tree/problem
[05] https://www.hackerrank.com/challenges/dice-path/problem
[06] https://www.hackerrank.com/challenges/sherlock-and-the-maze/problem
[07] https://www.hackerrank.com/challenges/password-cracker-fp/problem
[08] https://www.hackerrank.com/challenges/reverse-factorization/problem
[09] https://www.hackerrank.com/challenges/bangalore-bank/problem
[10] https://www.hackerrank.com/challenges/expressions/problem

HackerRank - Ad-Hoc

[01] https://www.hackerrank.com/challenges/rotate-string/problem
[02] https://www.hackerrank.com/challenges/remove-duplicates/problem
[03] https://www.hackerrank.com/challenges/huge-gcd-fp/problem
[04] https://www.hackerrank.com/challenges/missing-numbers-fp/problem
[05] https://www.hackerrank.com/challenges/common-divisors/problem
[06] https://www.hackerrank.com/challenges/subset-sum/problem
[07] https://www.hackerrank.com/challenges/jumping-bunnies/problem
[08] https://www.hackerrank.com/challenges/mango/problem
[09] https://www.hackerrank.com/challenges/captain-prime/problem
[10] https://www.hackerrank.com/challenges/minimum-multiple/problem
[11] https://www.hackerrank.com/challenges/messy-medians/problem
[12] https://www.hackerrank.com/challenges/boleyn-salary/problem
[13] https://www.hackerrank.com/challenges/kundu-and-bubble-wrap/problem
[14] https://www.hackerrank.com/challenges/puzzle-and-pc/problem
[15] https://www.hackerrank.com/challenges/game-of-kyles/problem
[16] https://www.hackerrank.com/challenges/elementary-watson
[17] https://www.hackerrank.com/challenges/convolutional-coding/problem

HackerRank - Misc

[01] https://www.hackerrank.com/challenges/simplify-the-algebraic-expressions/problem

[02] https://www.hackerrank.com/challenges/brainf-k-interpreter-fp/problem

[03] https://www.hackerrank.com/challenges/expressions-v2/problem

[04] https://www.hackerrank.com/challenges/while-language-fp/problem

[05] https://www.hackerrank.com/challenges/intuitive-language/problem

[06] https://www.hackerrank.com/challenges/down-with-abstractions/problem

[07] https://www.hackerrank.com/challenges/infer/problem

Lecture Agenda

- ✔ Section 1: Input/Output
- ✔ Section 2: Basic Operator
- ✔ Section 3: Condition
- ✔ Section 4: Loop
- ✔ Section 5: Function


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