Generátor úloh do aplikované kryptografie

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Zadání



- Navrhněte a implementujte vlastní službu pro generování úloh do aplikované kryptografie.
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Rešení



Unordered lists

- Lorem ipsum dolor sit amet, consectetuer adipiscing elit.
- Etiam sapien elit, consequat eget, tristique non, venenatis quis, ante.
- Aliquam erat volutpat.
- Integer lacinia.
- Cras pede libero, dapibus nec, pretium sit amet, tempor quis.

Ordered lists

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?Diagram



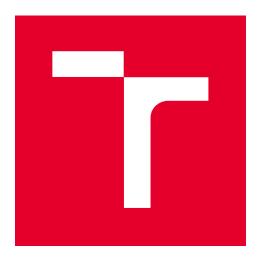


Figure: Your caption



Table: Your caption

Function name	Duration	Complexity	Length	Score
Algo 1	0.0159	0.50	125	78
Algo 2	0.0453	0.65	854	88
Algo 3	0.8642	0.77	84	95
Algo 4	0.0020	0.24	638	76



Pythagorean theorem can be written in one short equation as: $a^2 + b^2 = c^2$ where c is the longest side of the triangle, a and b are the other two sides.

Other useful equations (thank you John Napier):

$$\log_b(x \cdot y) = \log_b(x) + \log_b(y) \tag{1}$$

$$\log_b\left(\frac{x}{y}\right) = \log_b(x) - \log_b(y) \tag{2}$$

$$\log_b(x^p) = p \cdot \log_b(x) \tag{3}$$

$$\log_b(x) = y$$
 exactly if $b^y = x$ (4)



Příklad Python kódu

```
while True:
    valid_codes = print_all_tasks()
    code = str(input(f"{C_BLUE}[Skore: {SCORE}]] {C_YELLOW} Zadejte kod ulohy, kterou
    si prejete resit:{C_RES}"))
    if code not in valid_codes:
        print(f"{C_RED} spatny kod{C_RES}")
    else:
        clear_console()
    request = requests.get(f"{API}/task?code={code}")
```

Příklad PHP kódu

```
1 $random = rand(1,2); //slouzi k vyberu prvocislo / slozene cislo
2 //podle vyberu se operand $prime nastavi na True/False
3 if ($random == 1) {
4 //prvocislo
5 $X = rand(530, 10000);
6 $C = gmp_nextprime($X); //vysledek
7
8 $prime= True;
9
10 } else {
```

Dosažené výsledky



• Funkční generátor