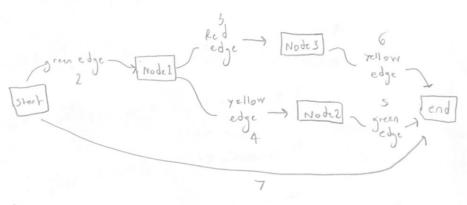
350 Homework 11



Problem 1: Enumerating the i-th Shorkest paths from Inital to Final node

Dishstras algorithm or At angorithm to Find Shortest path

con be used to find he next K-1 Stockst paths

Most officially

problem 2: Finding the Storhal path without a Red edge followed by a yellow redge

Problem 3

7 DFS/BFS with Storte nemar 120 Loan

-> Hosen was signine

3 country unique signes

Roblen 4.

-> logariture travo Par nothans

> Shortest path algo

-> traph modification

- Renove any connection where red edge is directed bollowed by a perior edge

-> Shorks I path calculations

Startest path from Initial to Fred node

5. What is private key?

> RSA public hy where e = for, 1=10539750919

> Factorize n > Rectorize n to End prines panda

> colvulate \$ (n) > \$ (n) = (p-1)(q-1)

> Calculate d > dis such that (end) mod \$(n) = 1

The prime Rachars of n=10539750919, P= #3481

\$ (n) = (1p-1) (q-1)

The private key exponent d. 15 modular

MULLipholme invose et e modulo p(n).

Tri volue of \$(0) is 10,539,465,040, M

Private ky tomes pondy to be public by

e=49 n=10539750919 gren by J=3226366849

6. con you design a Hirffmon code algorithm?

1>5 > Frequency Analysis > basis of building a here Creaty colebook crok prior by gree to store all Characters Extract 10 > ASS-yn digit 0-9 € least frequen notes from greve to a line in he her - Create internal note, Stort from root to 5 m of frequences of liaves, links form lo notes he code Ros each Assyn to notes as Children or new no Le one he he is - insurt now note into built, traver it priorly grene to map con - Repeat until one Character or symbol note let, hot is he root at he

T. Amor hered enalysis is a technique to

assess the performance of an algorithm by Averaging

its resource consimption over a sequence of

sprations. This appropriates useful be concer it consides

both expansive and cheap appropriate, providing a balanced

view over a varse case shows. There are those methods

to perform amortized analysis, and regardinationing and potential methods