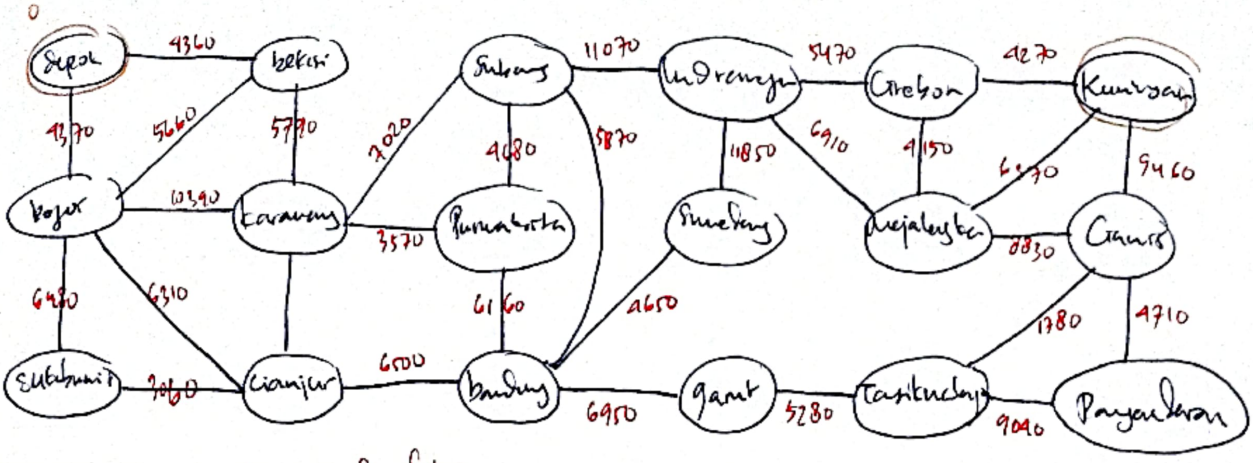
Dijkstra - 08/12/2021 — Lat 6

1.



* asumsi gunakan jalur terpendek dgn Dijkstra

Depok - Kuningan

↳ Depok - ~~Bogor~~ Bekasi - Karawang - Purwakarta - Bandung → Sumedang - Indr - Cirebon - Kuningan (a)

→ Garut - Tasik - ~~Majalengka~~ Ciamis - Kuningan (b)

(a) 24.240

(b) 23470 → lebih kecil → total 43380. → Kalau pakai sistem maju terus, nanti dipilih nextNode terkecil.

↳ Depok Kuningan:

Rule: Depok - Bekasi - Karawang - Purwakarta - Bandung - Garut - Tasik - Ciamis - Kuningan.

Depok - Kuningan → kalau manual, dipilih yang mana totalnya yang ~~paling~~ paling kecil

Rute: ~~Depok - Bogor~~

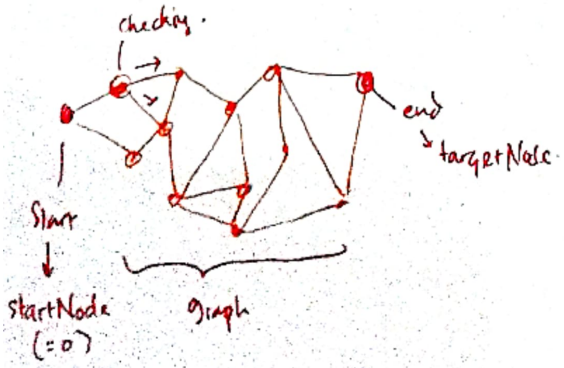
Depok - Bekasi - Karawang - Subang - Indramayu - Cirebon - Kuningan

Total: 32980

Subang — Pangandaran.

Rule: Subang - Bandung - Garut - Tasik - Pangandaran

Total: 23140



The function is to

Check: ~~is~~

① ~~Is~~ the node visited?

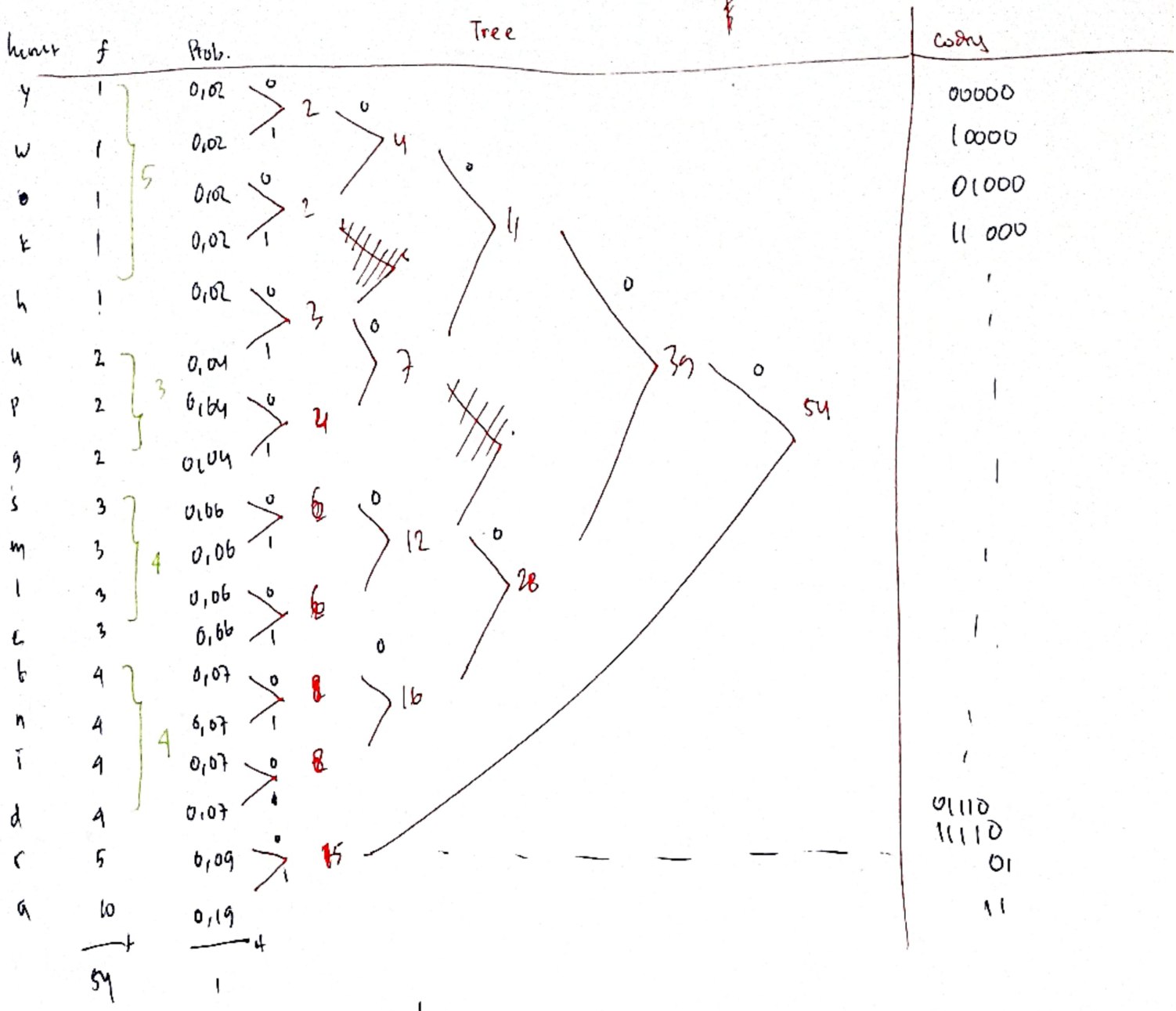
② If ~~there is~~ more than one path next to now, which one ~~of the lowest~~ have the lowest score?

~~fungsi dijkstra~~ (

```
Input graph // buat map
Input startNode // buat mulai
Input targetNode // buat akhir

for node in graph
    node.Score = ∞
    node.visited = FALSE
end

StartNode.Score = 0

While TRUE
    currentNode = node Lowest Score (graph)
    currentNode.visited = TRUE
    for nextNode in currentNode.neighbors
        if nextNode.visited = FALSE
            newScore = calcScore (currentNode, nextNode
            If newScore < nextNode.score
                nextNode.score = NewScore
                nextNode.routeToNode = currentNode
        end
    end
    If currentNode == targetNode // apabila selesai
        return buildpath (targetNode)
    end
    If node Lowest Score (graph).Scor == ∞
        No path found
    end
end
```

2. Teknik Huffmand Code. → mirip probabilitas genetika.. AABBCCDd.

Huffman



1/54, 2/54, 3/54, 4/54, 5/54, 6/54

↓ ↓ ↓ ↓ ↓ ↓

0,02 0,04 0,06 0,07 0,09 0,19.

Avg bit length = (5.0,02)5 + (5.0,04)3 + (5.0,06)4 + (5.0,07)4
+ 2(0,08) + 2(0,15)
= 0,5 + 0,6 + 1,2 + 1,4 + 0,8 + 0,3
= 4,26 //