UNIVERSITATEA TEHNICĂ
A MOLDOVEI

Analiza algoritmului Dijkstra pentru soluționarea a unei probleme de transport

gr. TI-207

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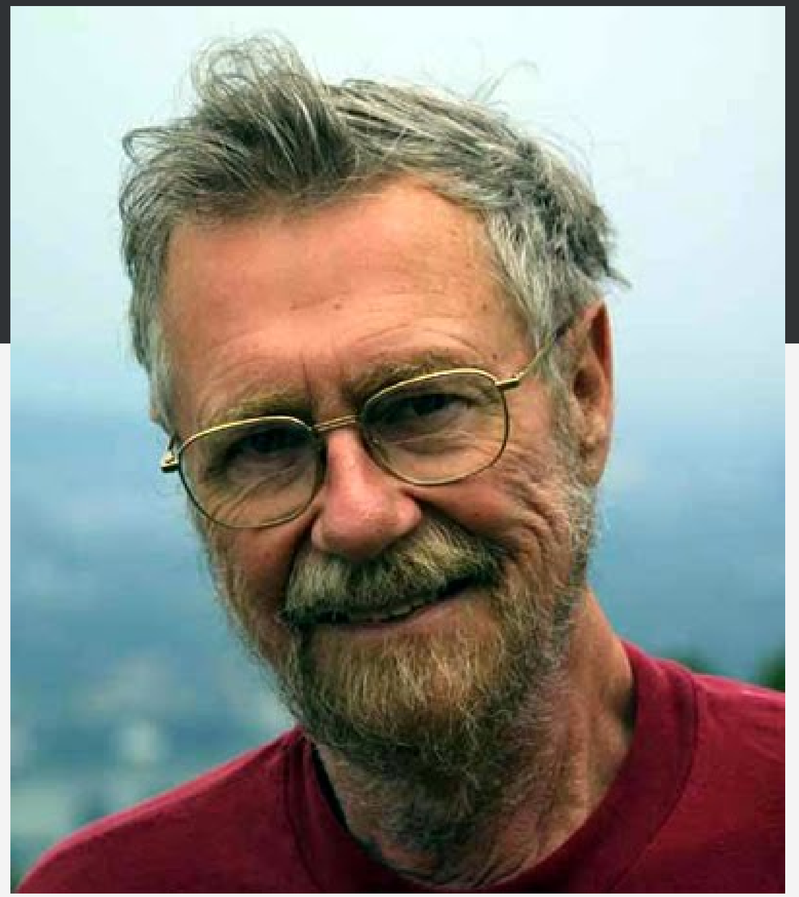
Inventatorul algoritmului Dijkstra

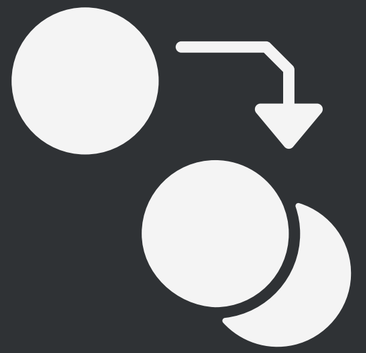
“Grace, clarity and the like are largely quantified. (Mozart owned this: many of his works, from which the breath stops, are deceptively simple; it seems as if they were created from practically nothing!) "



Edsger Wybe Dijkstra

Descrierea binary heap

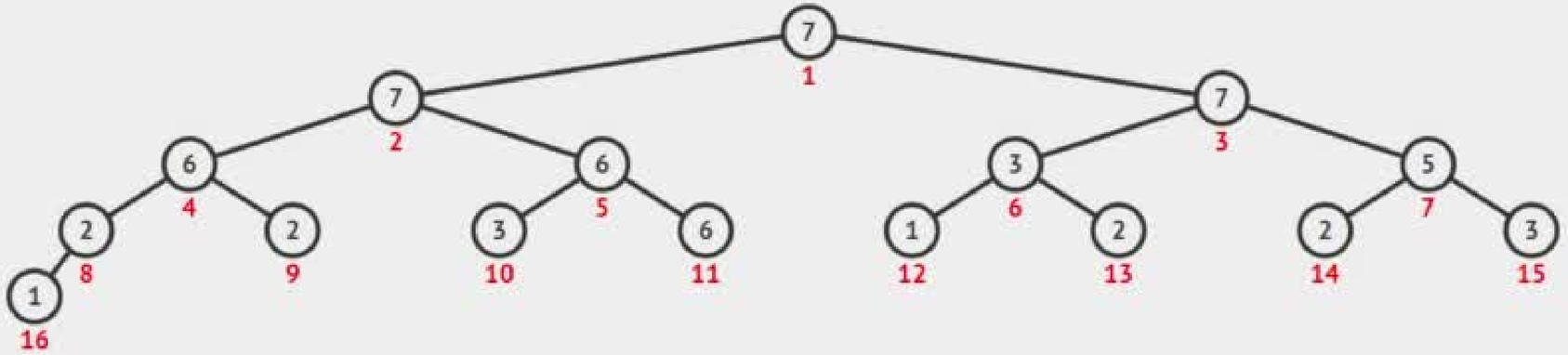
Inițializare



Create(A) - O(N log N):
1,6,1,6,7,2,3,6,2,3,7,2,3,5,7,2

Descrierea binary heap

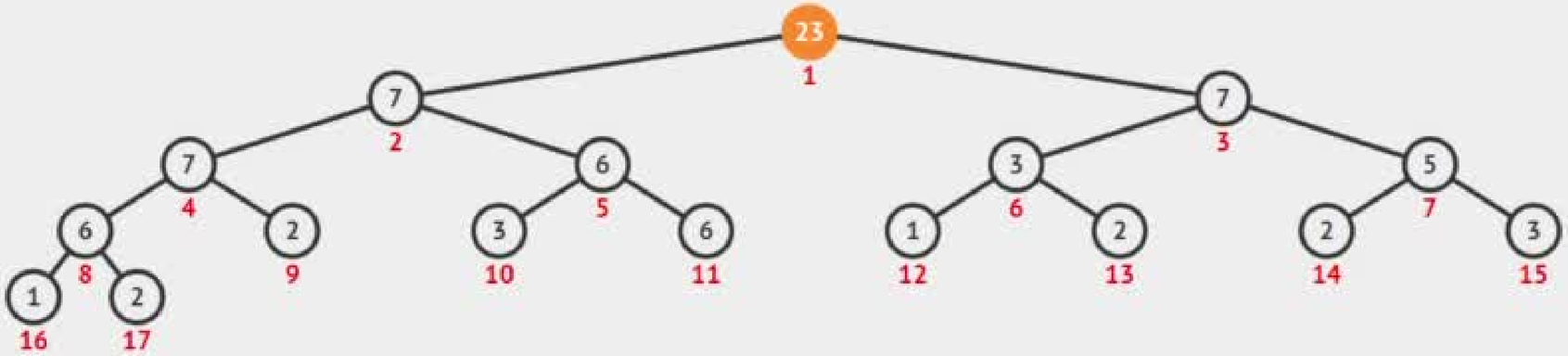
Inserare



Insert 23

Descrierea binary heap

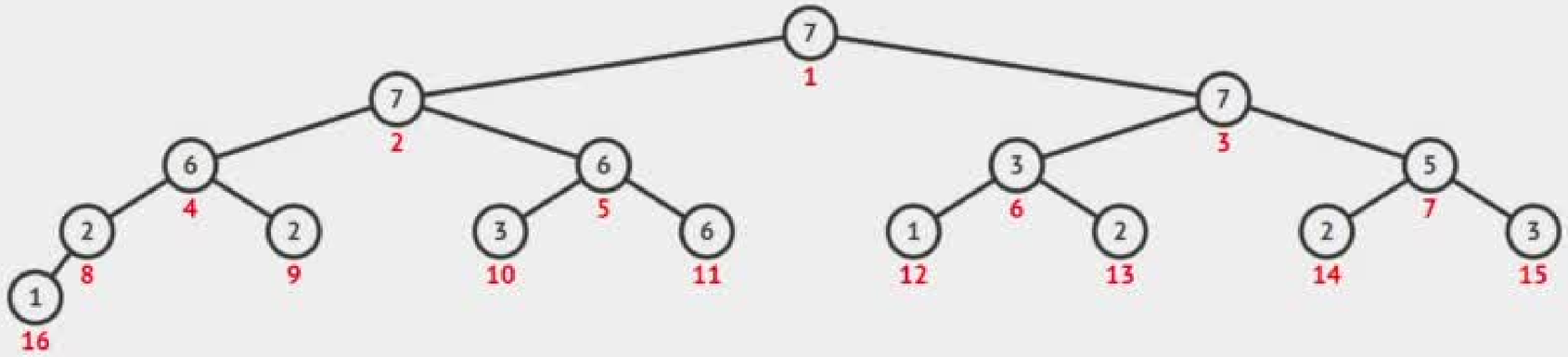
Extragerea elementului maxim



ExtractMax

Descrierea binary heap

Actualizarea unei valori



UpdateKey(16, 9)

(0, 0) Start

(0, 4)

(1, 0)

Block

Block

Block

Algoritmul Dijkstra

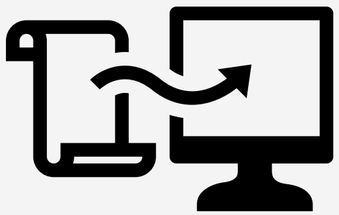
PROBLEMA

Expunerea problemei

PROBLEMA

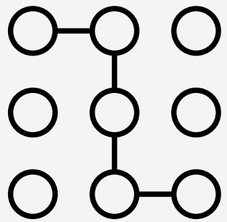
Optimizarea livrărilor

Stabilirea punctului de start și finiș



Procesarea datelor

Atingerea punctului de destinație

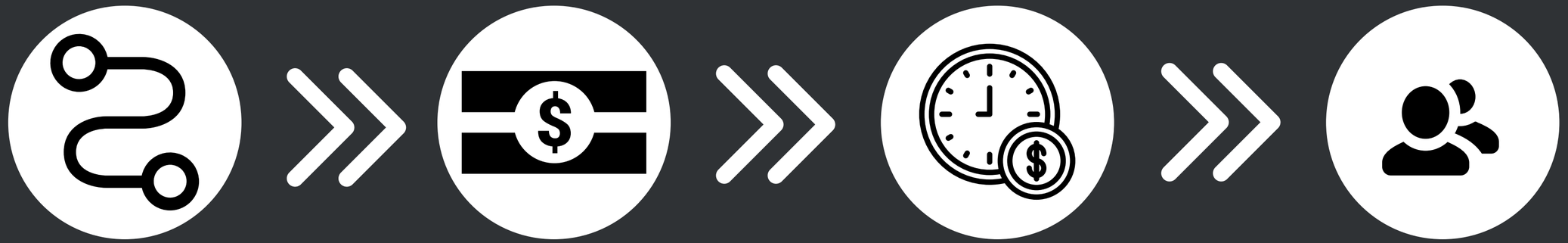


Inițializarea drumului minim

Ilustrarea algoritmului

CONSECINȚE

Efecte pozitive



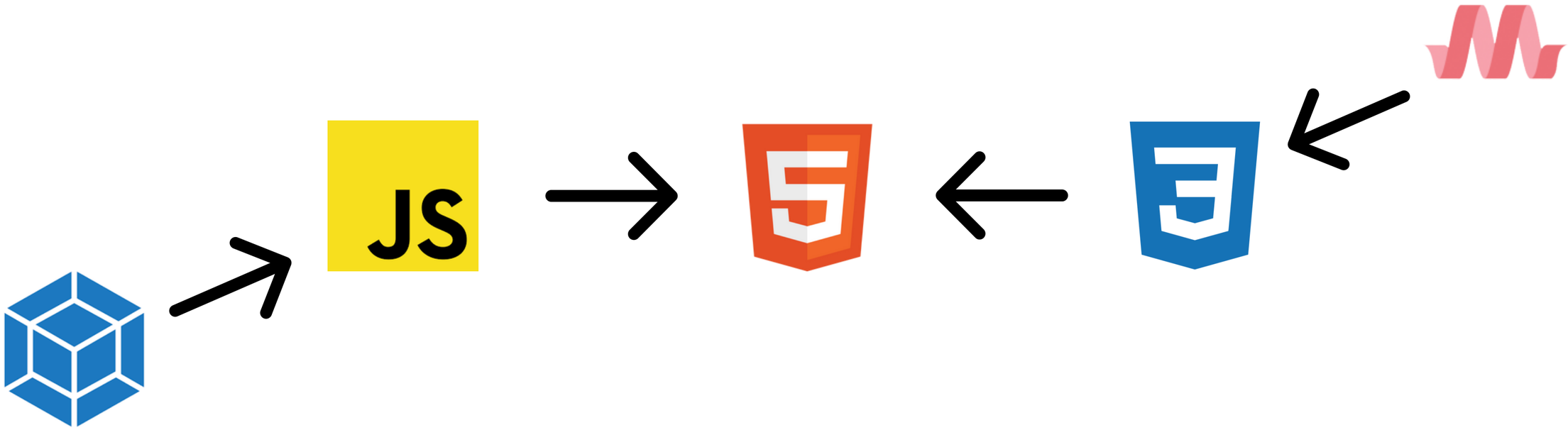
Minimizarea distanței parcurse

Reducerea costurilor de transport

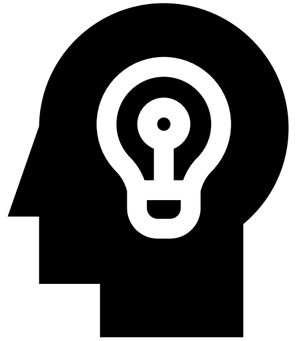
Optimizarea timpului de livrare

Satisfacerea clientelei

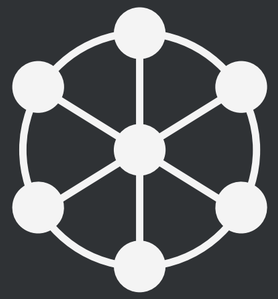
Tehnologii utilizate



Concluzii



Precizie



Universalitate

Flexibilitate