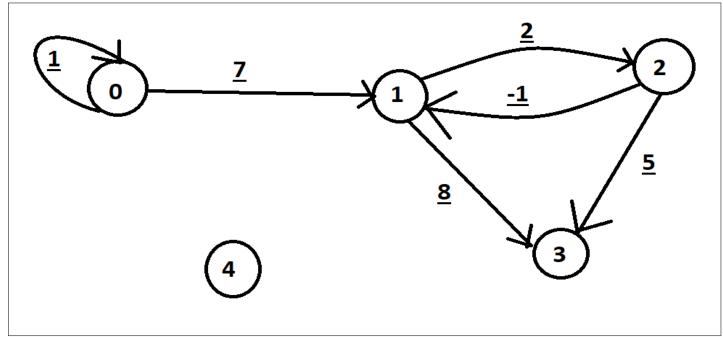
# Csoka Ervin – 938 (Prelungiri)

# **Graph Lab1**



#### Set of Vertices:

Vertex0{In-Degree=1, Out-Degree=2}

Vertex1{In-Degree=2, Out-Degree=2}

Vertex2{In-Degree=1, Out-Degree=2}

Vertex3{In-Degree=2, Out-Degree=0}

Vertex4{In-Degree=0, Out-Degree=0}

In From: V0 | Out To: V1

In From: V0, V2 | Out To: V2, V3

In From: V1 | Out To: V1, V3

In From: V1, V2

### Set of Edges:

Edge{Vertex1=1, Vertex2=2, Weight=2}

Edge{Vertex1=2, Vertex2=1, Weight=-1}

Edge{Vertex1=0, Vertex2=0, Weight=1}

Edge{Vertex1=1, Vertex2=3, Weight=8}

Edge{Vertex1=2, Vertex2=3, Weight=5}

Edge{Vertex1=0, Vertex2=1, Weight=7}

#### Traversal:

$$V0 (\rightarrow V0) \rightarrow V1 (\rightarrow V2 \rightarrow V1) \rightarrow V3$$

$$V0 (\rightarrow V0) \rightarrow V1 \rightarrow V2 \rightarrow (V1 \rightarrow V2) \rightarrow V3$$

 $V1 \rightarrow V3$ 

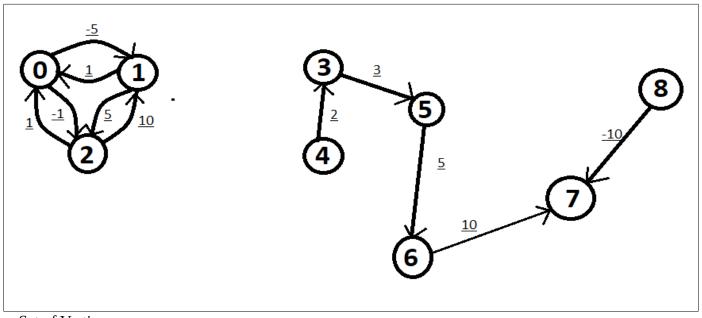
$$V1 (\rightarrow V2 \rightarrow V1) \rightarrow V3$$

$$V1 \rightarrow V2 (\rightarrow V1 \rightarrow V2) \rightarrow V3$$

$$V2 \rightarrow V1 (\rightarrow V2 \rightarrow V1) \rightarrow V3$$

 $V2 \rightarrow V3$ 

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#### Set of Vertices:

Vertex0{In-Degree=2, Out-Degree=2, } Vertex1{In-Degree=2, Out-Degree=2, } Vertex2{In-Degree=2, Out-Degree=2, } Vertex3{In-Degree=1, Out-Degree=1, } Vertex4{In-Degree=0, Out-Degree=1, } Vertex5{In-Degree=1, Out-Degree=1, } Vertex6{In-Degree=1, Out-Degree=1, } Vertex7{In-Degree=2, Out-Degree=0, } Vertex8{In-Degree=0, Out-Degree=1, } In From: V1, V2 | Out To: V1, V2 In From: V0, V2 | Out To: V0, V2 In From: V0, V1 | Out To: V0, V1

In From: V4 | Out To: V5

Out To: V3

In From: V3 | Out To: V6 In From: V5 | Out To: V7

In From: V6, V8 Out To: V7

#### Set of Edges

Edge{Vertex1=2, Vertex2=1, Weight=10} Edge{Vertex1=3, Vertex2=5, Weight=3} Edge{Vertex1=4, Vertex2=3, Weight=2} Edge{Vertex1=0, Vertex2=2, Weight=-1} Edge{Vertex1=8, Vertex2=7, Weight=-10} Edge{Vertex1=2, Vertex2=0, Weight=1} Edge{Vertex1=6, Vertex2=7, Weight=10} Edge{Vertex1=0, Vertex2=1, Weight=-5} Edge{Vertex1=1, Vertex2=0, Weight=1} Edge{Vertex1=5, Vertex2=6, Weight=5}

Edge{Vertex1=1, Vertex2=2, Weight=5}

## Traversal:

 $V0 \rightarrow V1 \rightarrow V2$   $V0 \rightarrow V2 \rightarrow V1$   $V1 \rightarrow V2 \rightarrow V0$   $V1 \rightarrow V0 \rightarrow V2$   $V2 \rightarrow V1 \rightarrow V0$ 

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$$\begin{array}{c} V2 \rightarrow V0 \rightarrow V1 \\ V3 \rightarrow V5 \rightarrow V6 \rightarrow V7 \\ V4 \rightarrow V3 \rightarrow V5 \rightarrow V6 \rightarrow V7 \\ V5 \rightarrow V6 \rightarrow V7 \\ V6 \rightarrow V7 \\ V8 \rightarrow V7 \\ \end{array}$$