Drawing Graphs

December 26, 2019

This is a live example showing that the same graph can be drawn in various ways. Instructions: proceed through this example by pressing shift-enter or the play button in the toolbar above.

First, we create a simple directed graph with five nodes and six edges.

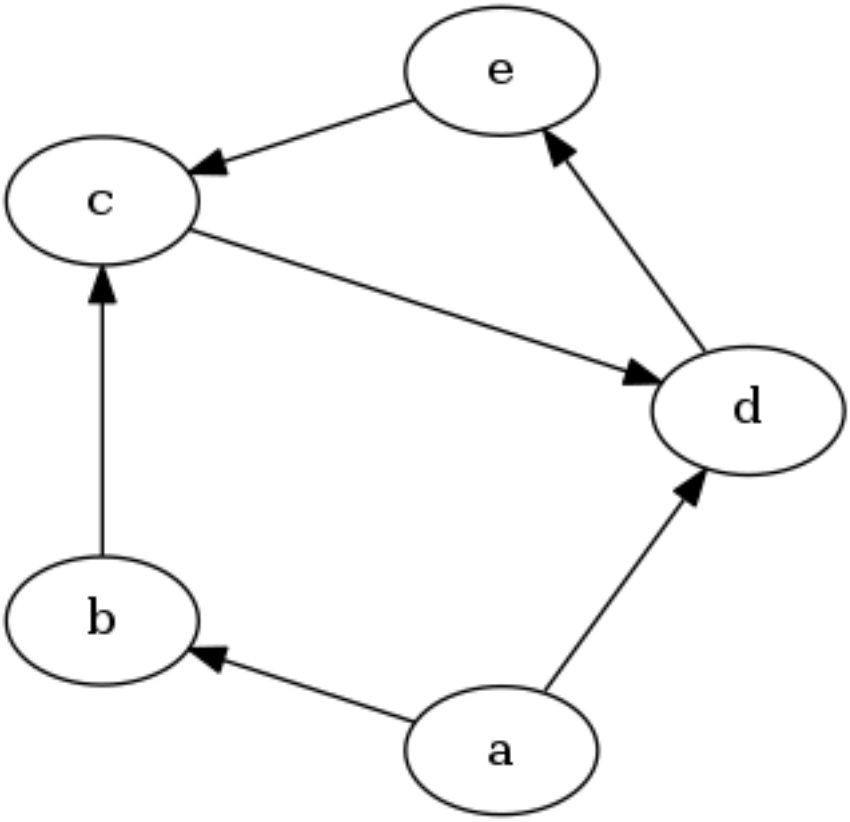
In [1]:
```
import networkx as nx
import pygraphviz as pgv
from nxpd import draw, nxpdParams
nxpdParams['show'] = 'ipynb'


G = nx.DiGraph()
G.add_edge("a", "b")
G.add_edge("b", "c")
G.add_edge("c", "d")
G.add_edge("d", "e")
G.add_edge("e", "c")
G.add_edge("a", "d")
```

Now, let's draw it. We first draw it using circular layout.

In [2]:
```
draw(G, layout='circo')
```

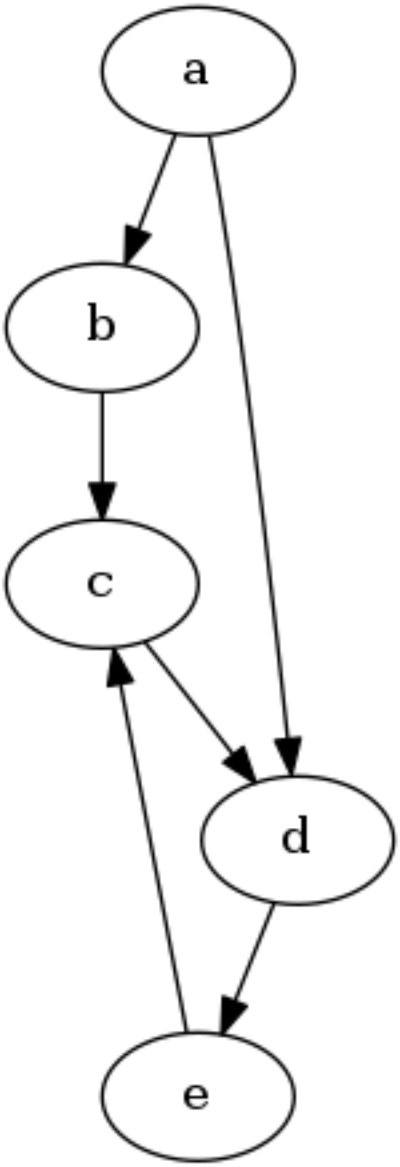
Out[2]:



Then, let's use a layered layout.

```
In [3]: draw(G, layout='dot')
```

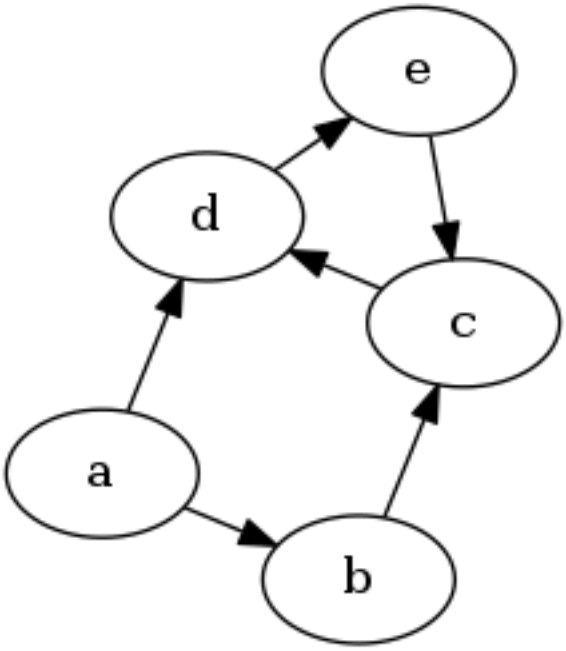
Out[3]:



Finally, let's draw it using a different layout.

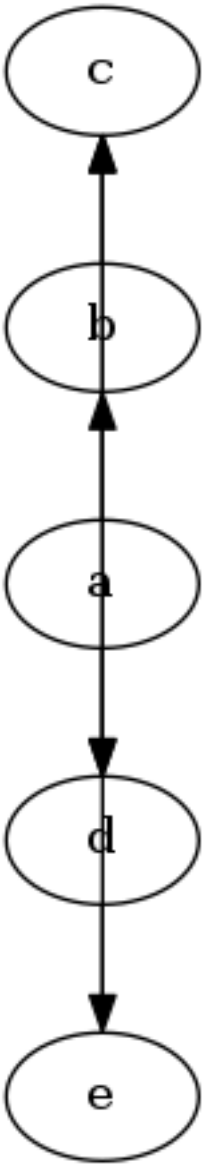
```
In [4]: draw(G, layout='neato')
```

Out[4]:




```
In [8]: draw(G, layout= 'twopi') #'neato','dot','twopi','circo','fdp','nop',  'wc','acyclic','gvp
```

Out[8]:



You may now want to go back to the first code block and to fool around with the graph. E.g., try to add new edges to it. To clear all output, go to Kernel -> Restart & Clear Output.