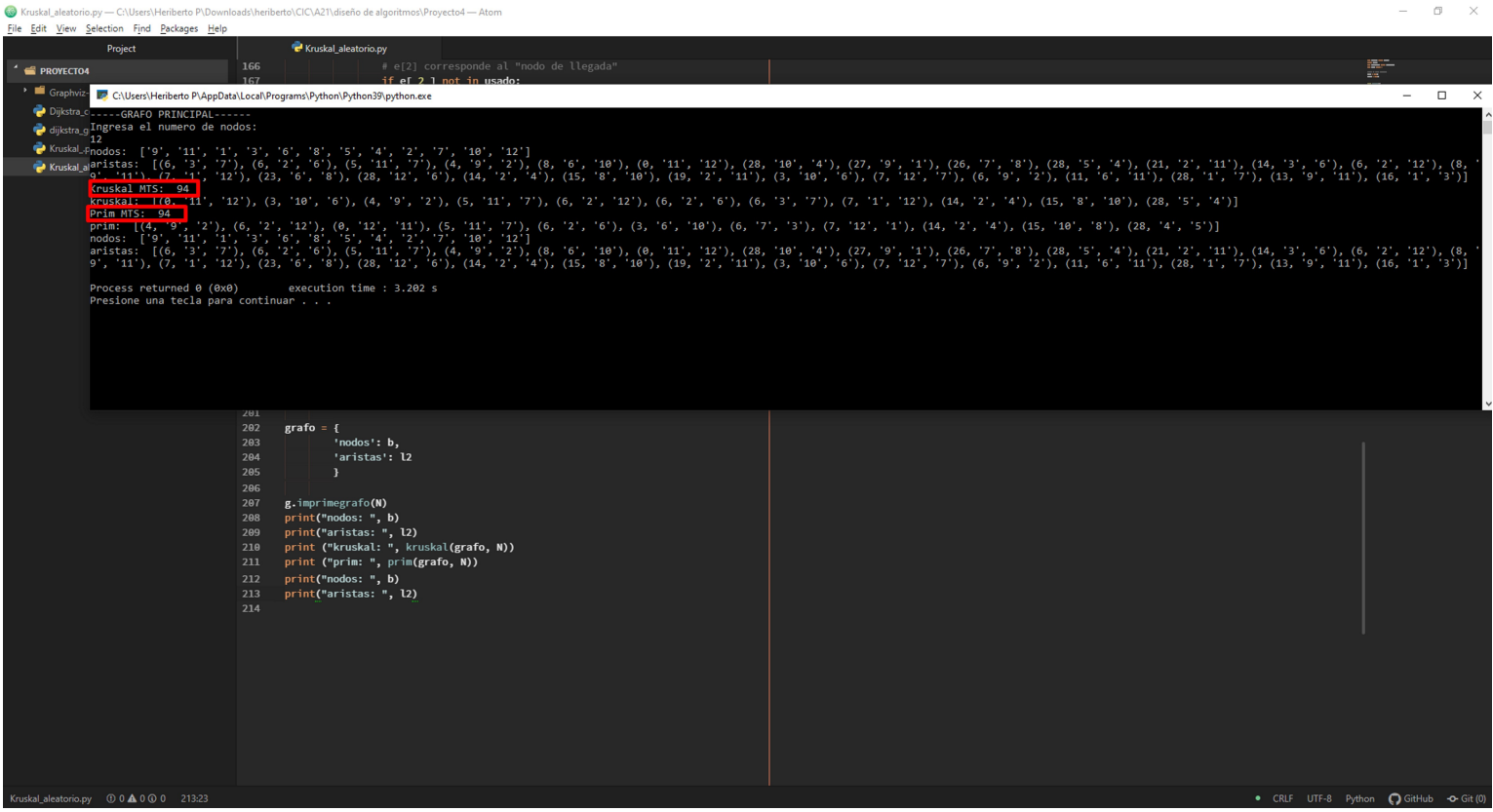
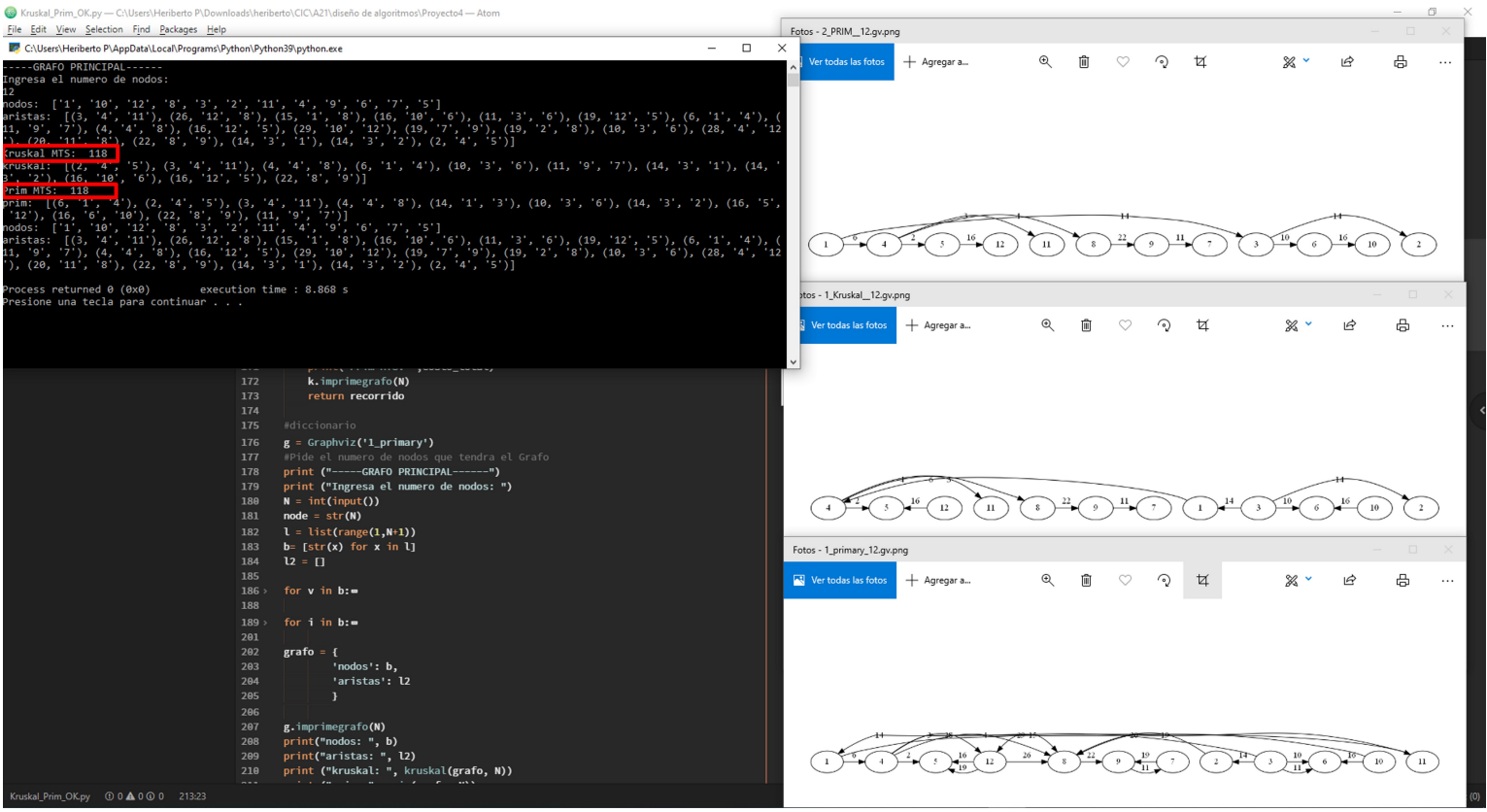
Proyecto 4 Capturas de Pantalla

miércoles, 23 de junio de 2021 05:01 p. m.





Kruskal_Prim_OK.py — C:\Users\Heriberto P\Downloads\heriberto\CIC\A21\diseño de algoritmos\Proyecto4 — Atom

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Project | Kruskal_Prim_OK.py

C:\Users\Heriberto P\AppData\Local\Programs\Python\Python39\python.exe

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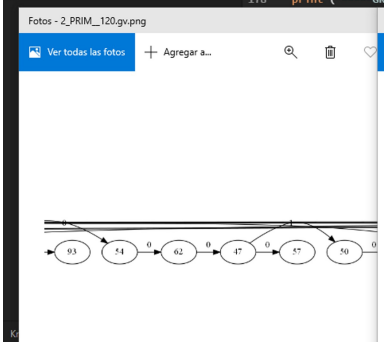

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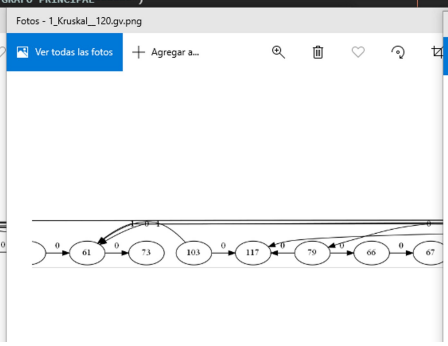

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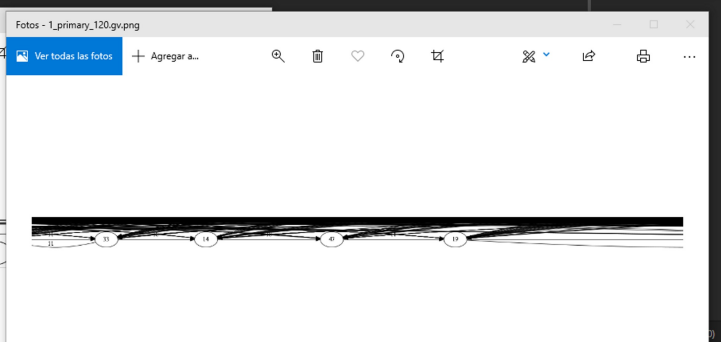

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Project

PROYECTO4

- Graphviz-output
- Dijkstra_complete.py
- dijkstra_graphviz.py
- Kruskal_.py
- Kruskal_aleatorio.py
- Kruskal_Prim_OK.py

Kruskal_Prim_OK.py

```
130 #BUSCAR ARBOL MINIMO
131
132 def prim( grafo, N ):
133     k = Graphviz("2_PRIM_")
134     #crea listas en base a un indice comun, en este caso los indices seran los nodos 1 y 2
135     #en cada indice se almacena la tupla (c, n1, n2)
136     conn = defaultdict( list )
137     for c,n1,n2 in grafo['aristas']:
138         #direccionamiento
139         conn[ n1 ].append( (c, n1, n2) )
140         conn[ n2 ].append( (c, n2, n1) )
141
142     recorrido = []
143     lcostos = []
144     #toma el nodo inicial
145     usado = set( grafo['nodos'][0] )
146     #toma las aristas que contienen el nodo inicial
147     nueva_arista = conn[ grafo['nodos'][0] ][:]
148
149     #mantiene en la posicion 0 el menor valor de la lista
150     heapify( nueva_arista )
151
152     while nueva_arista:
153         #saca el primer valor de la lista y lo almacena en costo, n1, n2
154         costo, n1, n2 = heappop( nueva_arista )
155         #pregunta si el nodo final de la arista no ha sido visitado
156         if n2 not in usado:
157             usado.add( n2 )
158             #agrega la arista al recorrido
159             recorrido.append( ( costo, n1, n2  ) )
160             k.agregaedge(n1, n2, costo)
161             lcostos.append(costo)
162             #print "recorrido",recorrido
163
164             #recorre la lista de nodos invertidos y en caso de que no se aya pasado por el nodo lo agrega a la lista de aristas.
165             for e in conn[ n2 ]:
166                 # e[2] corresponde al "nodo de llegada"
167                 if e[ 2 ] not in usado:
168                     #agrega "e" a nueva_arista
169                     heappush( nueva_arista, e )
170     costo_total = sum(lcostos)
171     print("Prim MTS: ",costo_total)
172     k.imprimegrafo(N)
173     return recorrido
174
175 #diccionario
176 g = Graphviz('1_primary')
```

Kruskal_Prim_OK.py 0 0 0 0 213:23 CRLF UTF-8 Python GitHub Git (0)