Reconocimiento de patrones

Tarea 3

Limpieza de datos II

Alumno:

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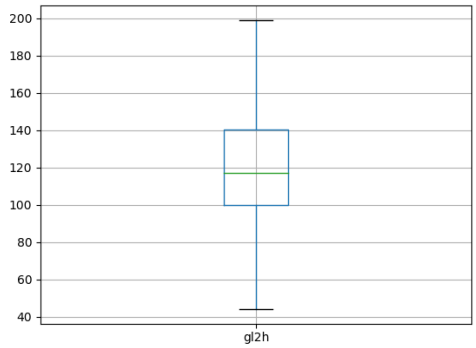
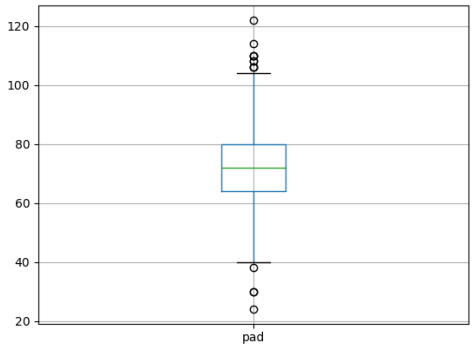
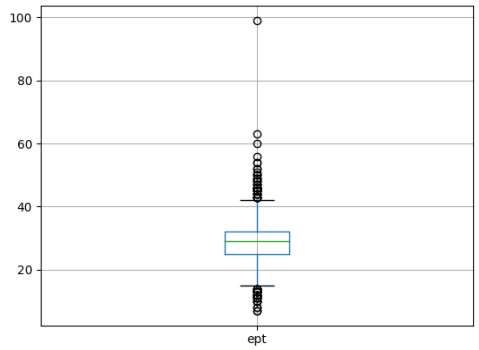
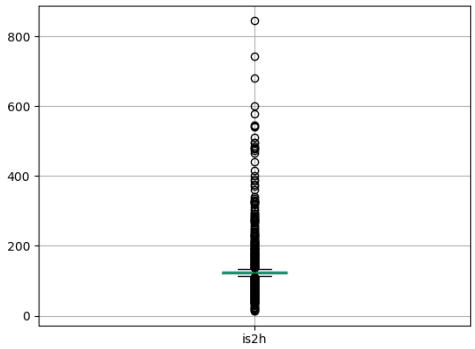
Analice los problemas de valores atípicos en el conjunto de datos Pima Indians Diabetes completo.

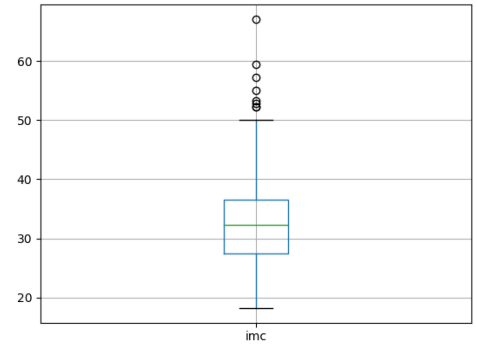
Diagramas de caja











Realizando una imputación con la mediana de las cinco variables que presentan valores faltantes y analizando el diagrama de caja de cada uno. Solo la variable 'gl2h' no presenta valores atipicos, 'imc' y 'pad' presentan pocos valores atípicos, pero 'ept' como 'is2h' presenta una gran cantidad de valores atípicos.

Analice los problemas de valores faltantes y valores atípicos en los datos del ejemplo 2 (Rendimiento de combustible) y del ejemplo 3 (Taxonomía de flores).

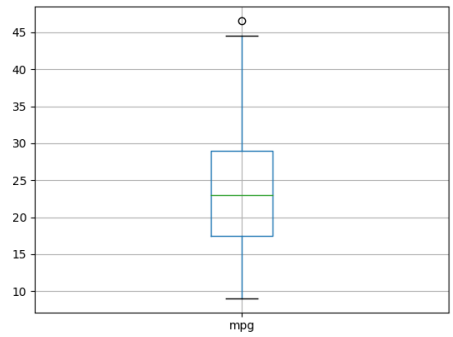
Rendimiento de combustible

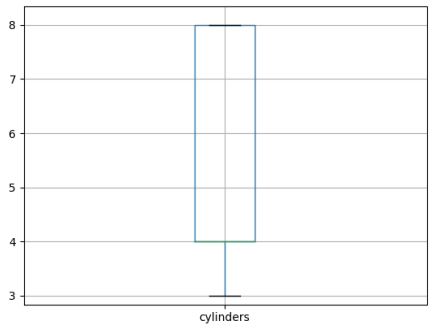
Porcentaje de datos nulos por columna

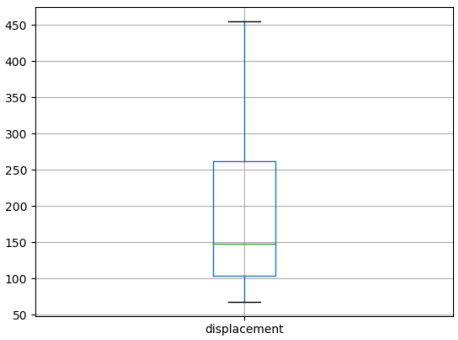
variable	porcentaje
mpg	0.00 %
cylinders	0.00 %
displacement	0.00 %
horsepower	1.50 %
weight	0.00 %
acceleration	0.00 %
model-year	0.00 %
origin	0.00 %
car-name	0.00 %

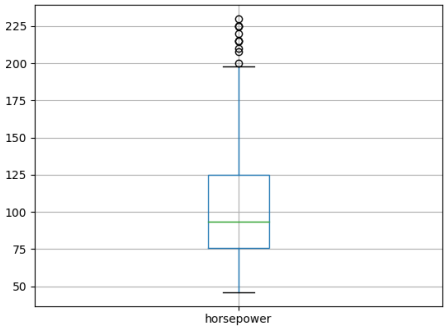
Solo la variable “horsepower” presenta valores faltantes.

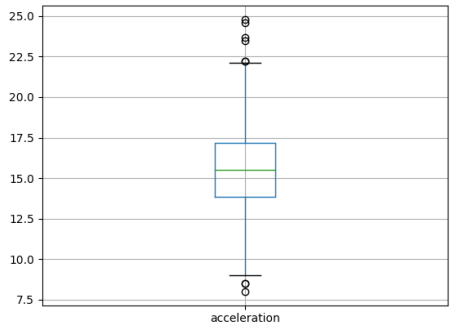
Diagrama de caja

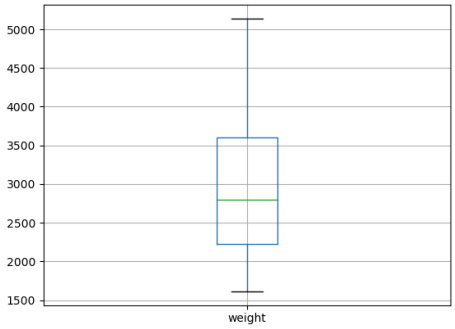












En cuanto a los valores atípicos, las variables 'cylinders', 'displacement' y 'weight' no presentaron valores atípicos. 'acceleration', 'horsepower' y 'mpg' presentan valores atípicos, 'mpg' presenta un valor atípico, 'horsepower' y 'acceleration' presentan varios valores atípicos.

Taxonomía de flores

Porcentaje de datos nulos por columna

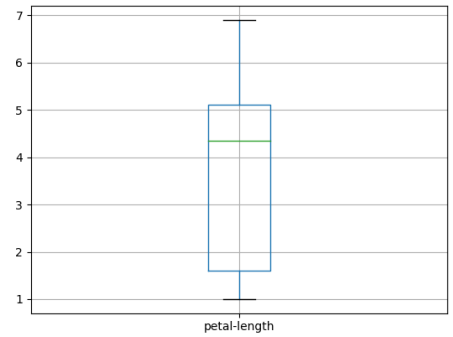
variable	porcentaje
sepal-length	0.00 %
sepal-width	0.00 %
petal-length	0.00 %
petal-width	0.00 %
class 0.0	0.00 %

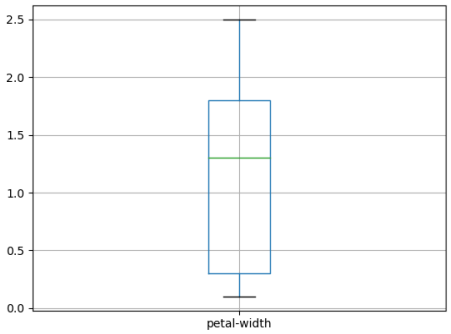
Descripción de los datos

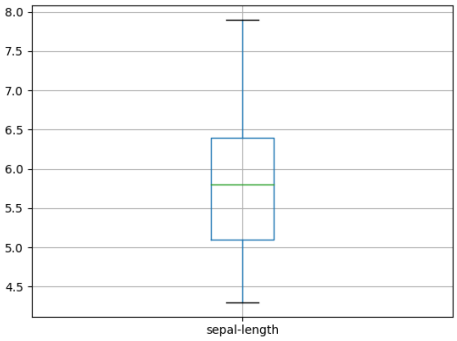
type	sepal-length	sepal-width	petal-length	petal-width
count	150.000000	150.000000	150.000000	150.000000
mean	5.843333	3.054000	3.758667	1.198667
std	0.828066	0.433594	1.764420	0.763161
min	4.300000	2.000000	1.000000	0.100000
25%	5.100000	2.800000	1.600000	0.300000
50%	5.800000	3.000000	4.350000	1.300000
75%	6.400000	3.300000	5.100000	1.800000
max	7.900000	4.400000	6.900000	2.500000

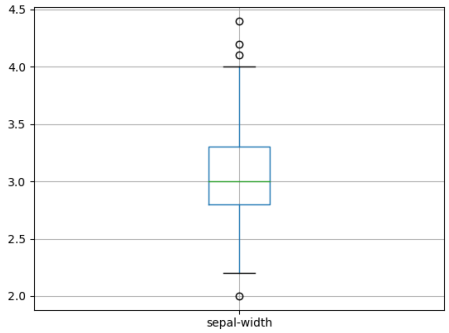
No hay variables que presenten valores faltantes.

Diagramas de caja









Únicamente la variable 'sepal-width' tiene valores atípicos con cuatro en total.