Part1

1. Define two custom numpy arrays, say A and B. Generate two new numpy arrays by stacking A and B vertically and horizontally.

Stacked Vertically: [[1,2,3], [4,5,6], [7,8,9],[10,11,12]]

Stacked Horizontally: [[1,2,3,7,8,9],[4,5,6,10,11,12]]

2. Find common elements between A and B. [Hint : Intersection of two sets]

[]

3. Extract all numbers from A which are within a specific range. eg between 5 and 10. [Hint: np.where() might be useful or boolean masks]

[5,6]

4. Filter the rows of iris_2d that has petallength (3rd column) > 1.5 and sepallength (1st column) < 5.0

[[4.8, 3.4, 1.6, 0.2], [4.8, 3.4, 1.9, 0.2], [4.7, 3.2, 1.6, 0.2], [4.8, 3.1, 1.6, 0.2]]

Part2

1. From df filter the 'Manufacturer', 'Model' and 'Type' for every 20th row starting from 1st (row 0).

df = pd.read_csv('https://raw.githubusercontent.com/selva86/datasets/master/Cars93_miss.csv')

	Manufacturer	Model	Type
1	Acura	Integra	Small
2	Chrysler	LeBaron	Compact
3	Honda	Prelude	Sporty

2. Replace missing values in Min.Price and Max.Price columns with their respective mean.

df = pd.read_csv('https://raw.githubusercontent.com/selva86/datasets/master/Cars93_miss.csv')

	Min.Price	Max.Price

1	12.9	18.8
2	29.2	38.7
3	25.9	32.3
4	20.63076923076923	44.6
5	20.63076923076923	26.676923076923078
6	14.2	17.3

3. How to get the rows of a dataframe with row sum > 100?

df = pd.DataFrame(np.random.randint(10, 40, 60).reshape(-1, 4))

		0	1	2
1	3	27	17	27
2	5	31	14	39
3	6	13	33	22
4	11	22	34	39