

Assignment 3

- 1) Read the adult.csv file available in the **data** folder on the KNIME Hub. The data are provided by the [UCI Machine Learning Repository](#).
- 2) Extract people with age between 20 and 40 (both included) and working in a workclass starting with "S"
- 3) Extract people with age between 40 and 60 (both included) and working in a workclass starting with "P"
- 4) Concatenate both subsets into a single data table

Step 1: Read the adult.csv file

This node dialog is not supported here.
Open dialog

#	RowID	age	workclass	fnlwgt	education	education_num	marital-status	occupation	relationship	race	sex	capital-gain	capital-loss	hours-per-week
1	Row0	39	State-gov	77516	Bachelors	13	Never-married	Adm-clerical	Not-in-family	White	Male	2174	0	40
2	Row1	50	Self-emp-not-inc	83311	Bachelors	13	Married-civ-spouse	Exec-managerial	Husband	White	Male	0	0	13
3	Row2	38	Private	215646	HS-grad	9	Divorced	Handlers-cleaner	Not-in-family	White	Male	0	0	40
4	Row3	53	Private	234721	11th	7	Married-civ-spouse	Handlers-cleaner	Husband	Black	Male	0	0	40
5	Row4	28	Private	338409	Bachelors	13	Married-civ-spouse	Prof-specialty	Wife	Black	Female	0	0	40
6	Row5	37	Private	284582	Masters	14	Married-civ-spouse	Exec-managerial	Wife	White	Female	0	0	40
7	Row6	49	Private	160187	9th	5	Married-spouse-absent	Other-service	Not-in-family	Black	Female	0	0	16
8	Row7	52	Self-emp-not-inc	209642	HS-grad	9	Married-civ-spouse	Exec-managerial	Husband	White	Male	0	0	45
9	Row8	31	Private	45781	Masters	14	Never-married	Prof-specialty	Not-in-family	White	Female	14084	0	50
10	Row9	42	Private	159449	Bachelors	13	Married-civ-spouse	Exec-managerial	Husband	White	Male	5178	0	40

Step 2: Extract people with age between 20 and 40 (both included) and working in a work class starting with "S"

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The screenshot shows a data processing workflow. On the left, there's a sidebar with 'Info', 'Nodes', 'Explorer', 'K-AI', and 'Monitor'. The main area has a 'Row Filter' node at the top, followed by a 'CSV Reader' node, another 'Row Filter' node, and a 'Concatenate' node at the bottom. A 'Statistics' button is also present. To the right is a 'Row Filter' dialog box with a 'Filter' section containing a criterion for 'age > Greater than 40'. Below it is a table titled 'Table Statistics' with 1857 rows and 15 columns, showing various demographic and socioeconomic data points.

Step 3: Extract People with age between 40 and 60 (both included) and working in a work class starting with “P”

This screenshot is similar to the one above but shows a different step in the process. The flow diagram includes an additional 'Row Filter' node before the 'Concatenate' node. The 'Row Filter' dialog box now includes a second criterion for 'age < Greater than 60'. The resulting table has 6860 rows, reflecting the filtered subset of the original data.

Step 4: Concatenate both subsets into a single data

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Screenshot of a data processing workflow in a tool like Alteryx or RapidMiner. The interface shows a canvas with various nodes connected by arrows, a sidebar with navigation icons, and a right-hand panel for configuration.

Workflow Diagram:

```

graph LR
    CSVReader[CSV Reader] --> RowFilter1[Row Filter]
    RowFilter1 --> Concatenate[Concatenate]
    RowFilter2[Row Filter] --> Concatenate
    Concatenate --> AddComment[Add comment]

```

Right Panel - Concatenate:

- How to combine input columns: Union (selected), Intersection
- RowID handling: Create new, Reuse existing
- Show advanced settings

Data View:

Rows: 8717 | Columns: 15

#	RowID	age	workclass	fnlwgt	education	education-number	marital-status	occupation	relations	race	sex	capital-gain	capital-loss	hours-per-week
1	Row0	39	State-gov	77516	Bachelors	13	Never-married	Adm-clerical	Not-in-family	White	Male	2174	0	40
2	Row1	30	State-gov	141297	Bachelors	13	Married-civ-spouse	Prof-specialty	Husband	Asian-Pac-Islander	Male	0	0	40
3	Row2	25	Self-emp-not-inc	176756	HS-grad	9	Never-married	Farming-fishing	Own-child	White	Male	0	0	35
4	Row3	22	State-gov	311512	Some-college	10	Married-civ-spouse	Other-service	Husband	Black	Male	0	0	15
5	Row4	29	Self-emp-not-inc	162298	Bachelors	13	Married-civ-spouse	Sales	Husband	White	Male	0	0	70
6	Row5	32	Self-emp-inc	317660	HS-grad	9	Married-civ-spouse	Craft-repair	Husband	White	Male	7688	0	40
7	Row6	29	State-gov	267989	Bachelors	13	Married-civ-spouse	Prof-specialty	Husband	White	Male	0	0	50
8	Row7	38	Self-emp-not-inc	120985	HS-grad	9	Married-civ-spouse	Craft-repair	Husband	White	Male	4386	0	35
9	Row8	28	State-gov	175325	HS-grad	9	Married-civ-spouse	Protective-serv	Husband	White	Male	0	0	40
10	Row9	28	State-gov	149624	Bachelors	13	Married-civ-spouse	Prof-specialty	Husband	White	Male	0	0	40