

Regression in Neural Network

Car Price Prediction

S NO	Age (Years)	Kms_driven	Fuel Type	Price (Lakhs)
1	8	27000	Petrol	3.35
2	9	43000	Diesel	4.75
3	5	6900	Petrol	7.25
4	11	5200	Petrol	2.85
5	8	42450	Diesel	4.6
6	4	2071	Diesel	9.25
7	7	18796	Petrol	6.75
8	7	33429	Diesel	6.5
9	6	20273	Diesel	8.75
10	7	42367	Diesel	7.45

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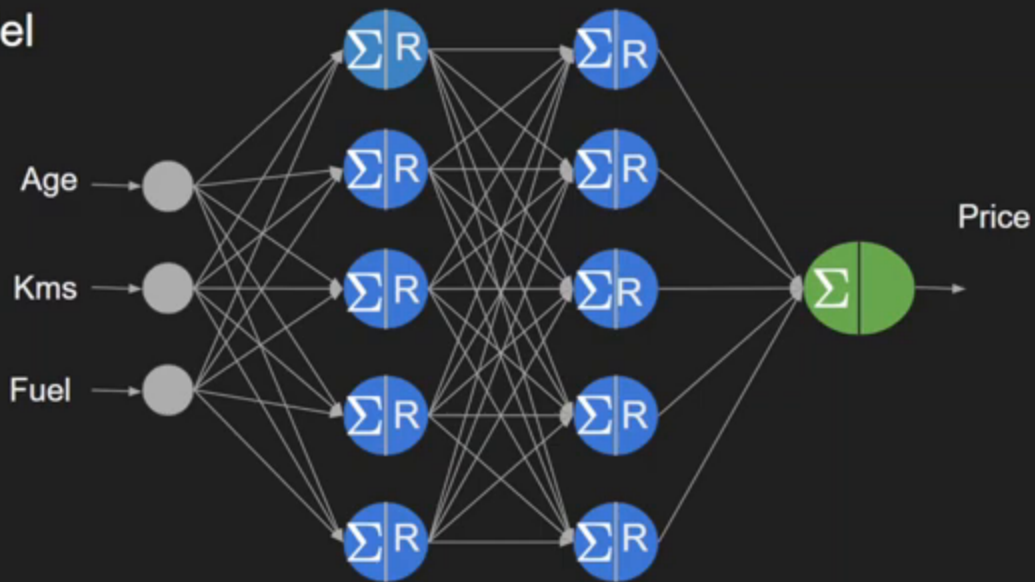
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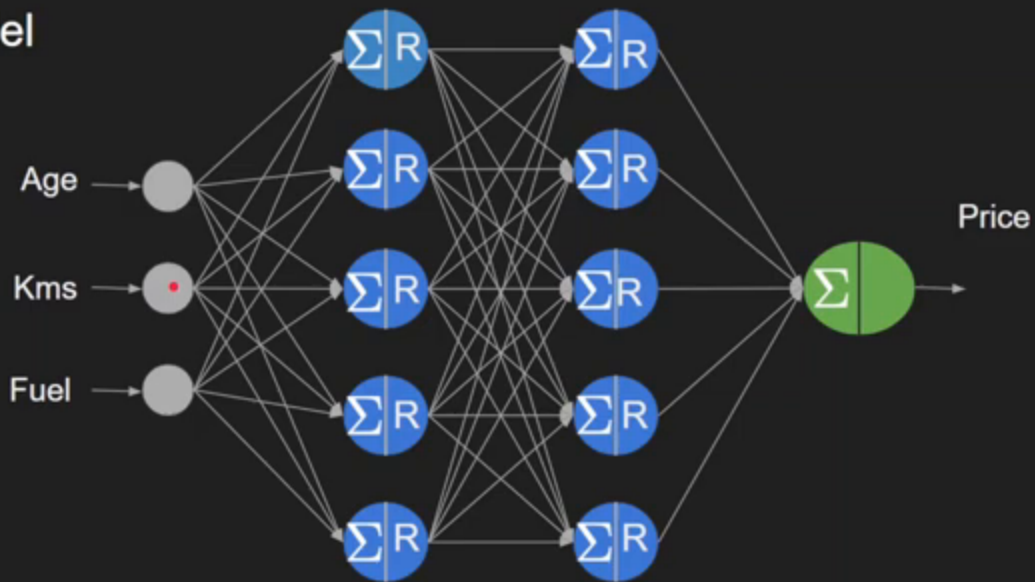
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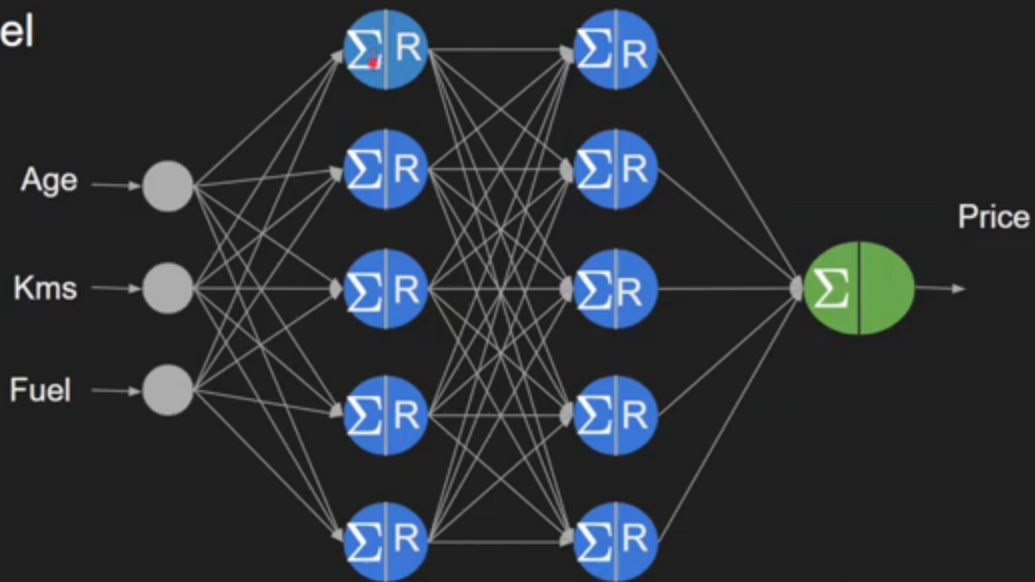
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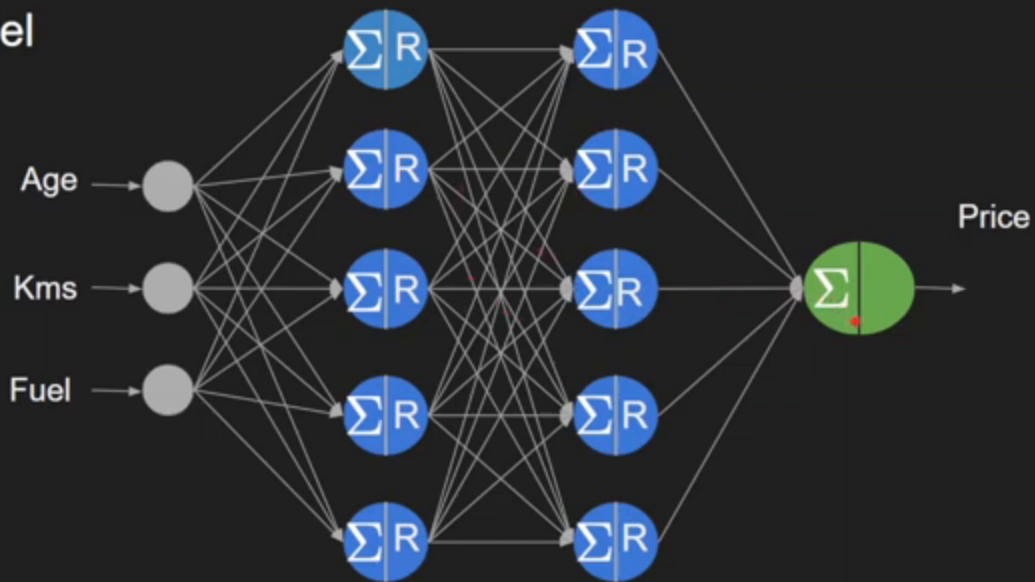
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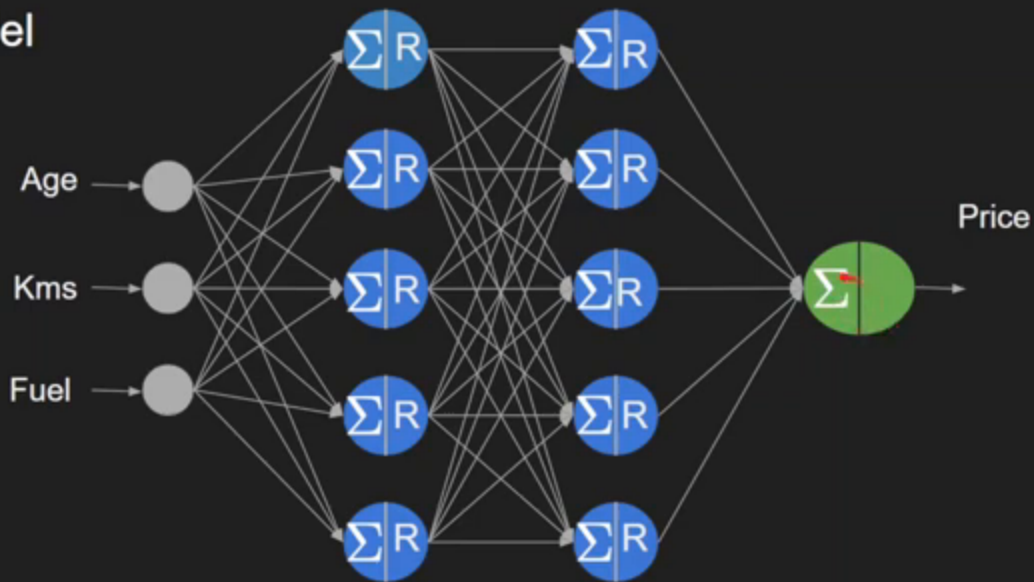
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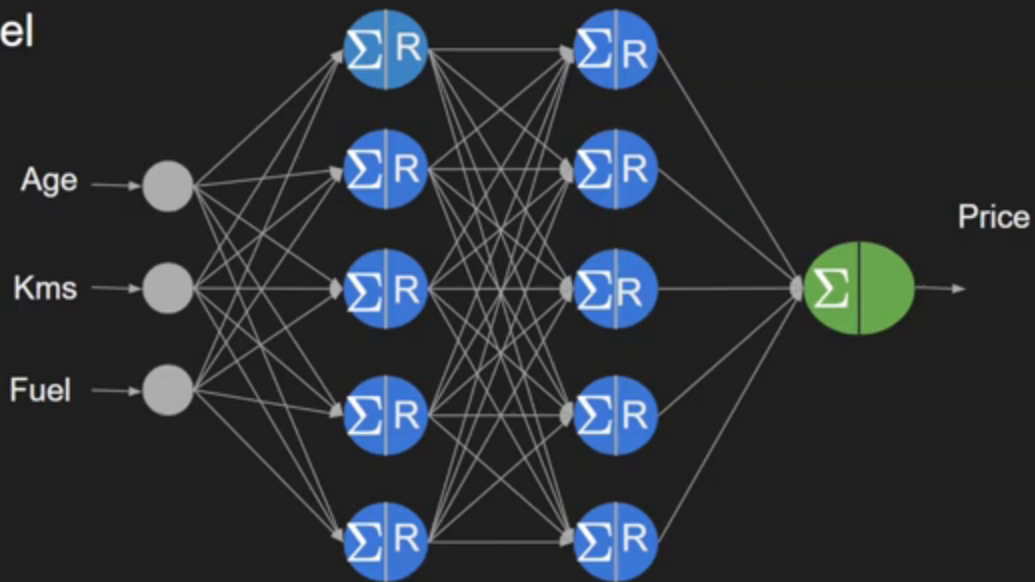
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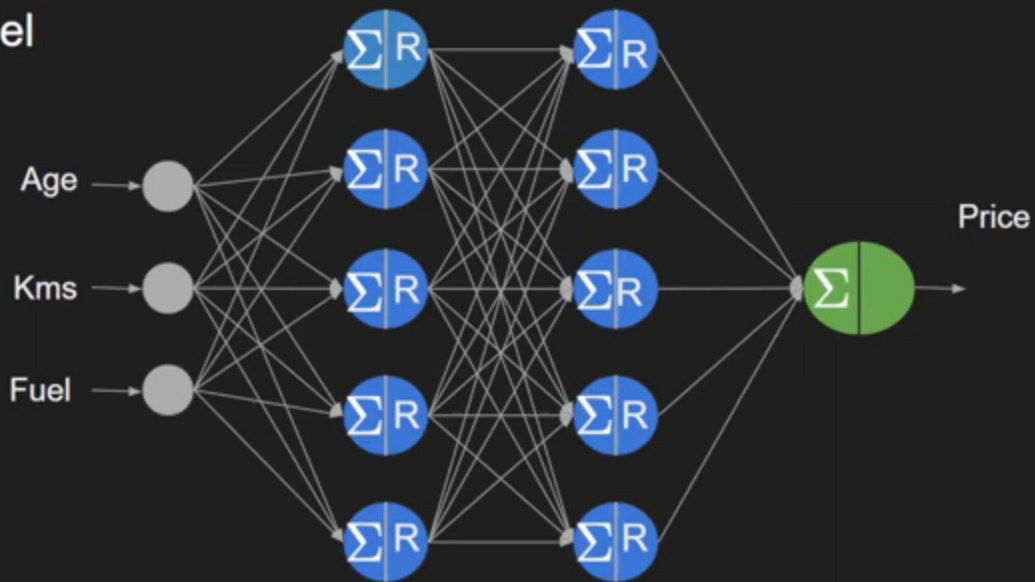
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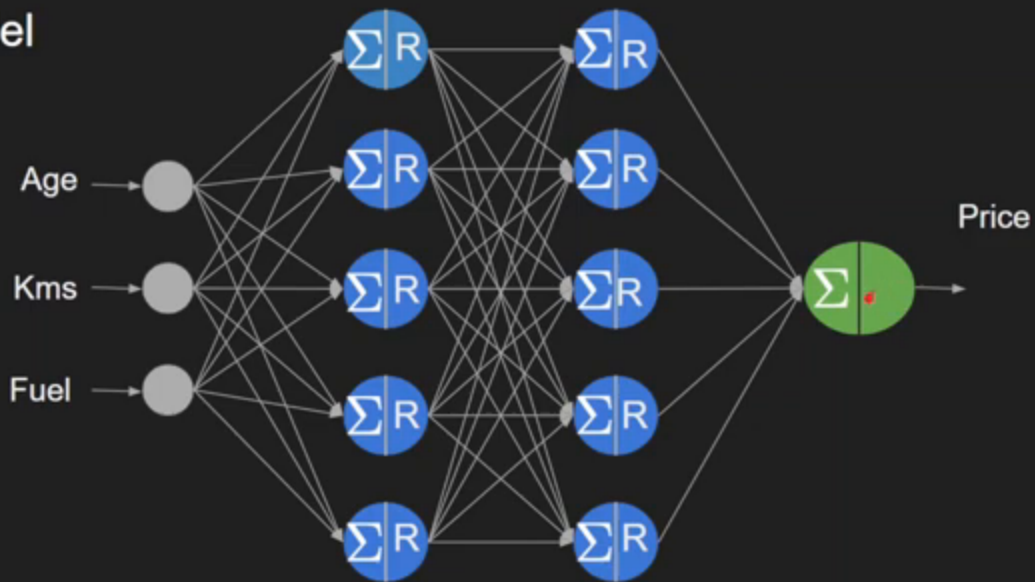
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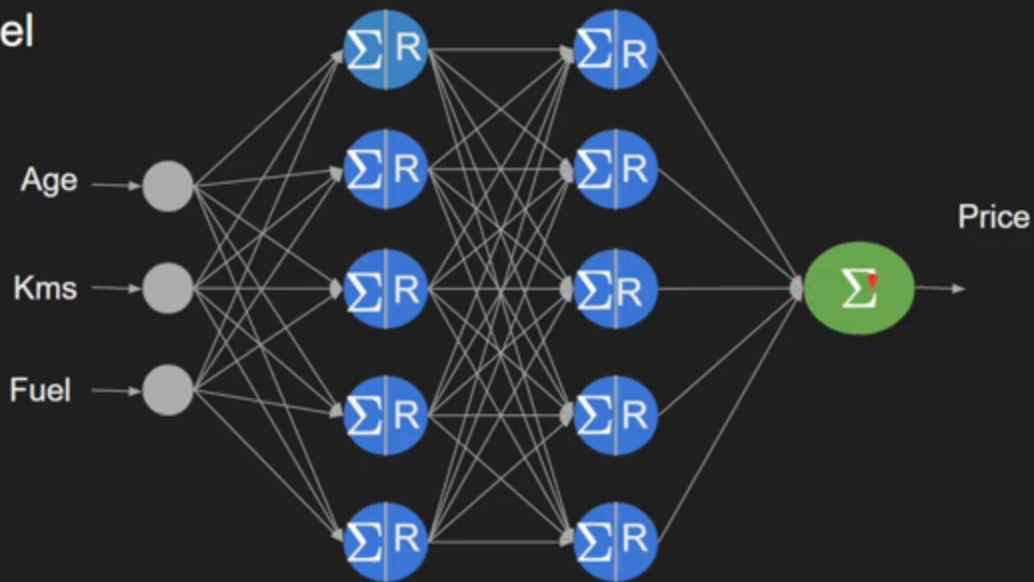
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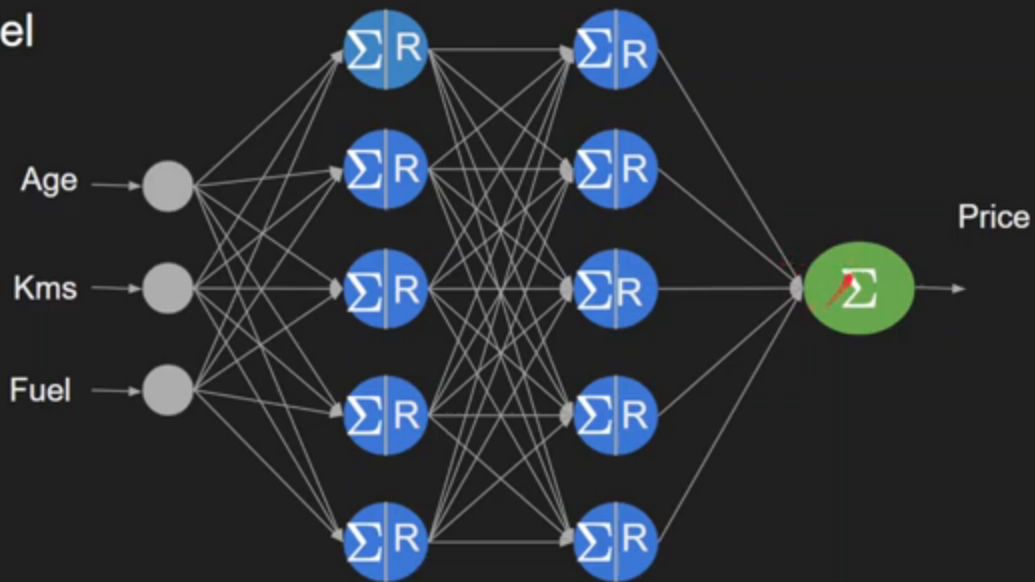
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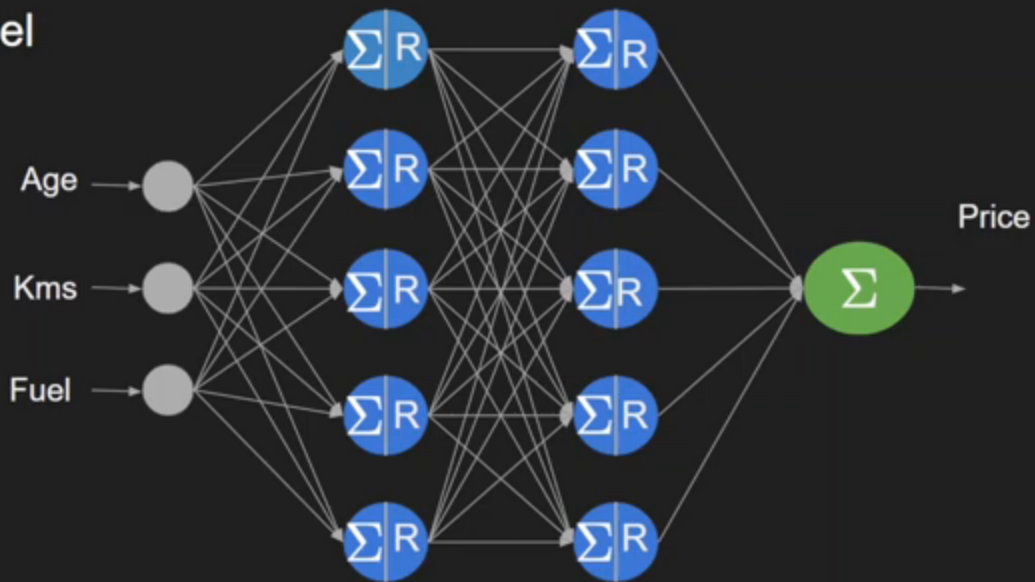
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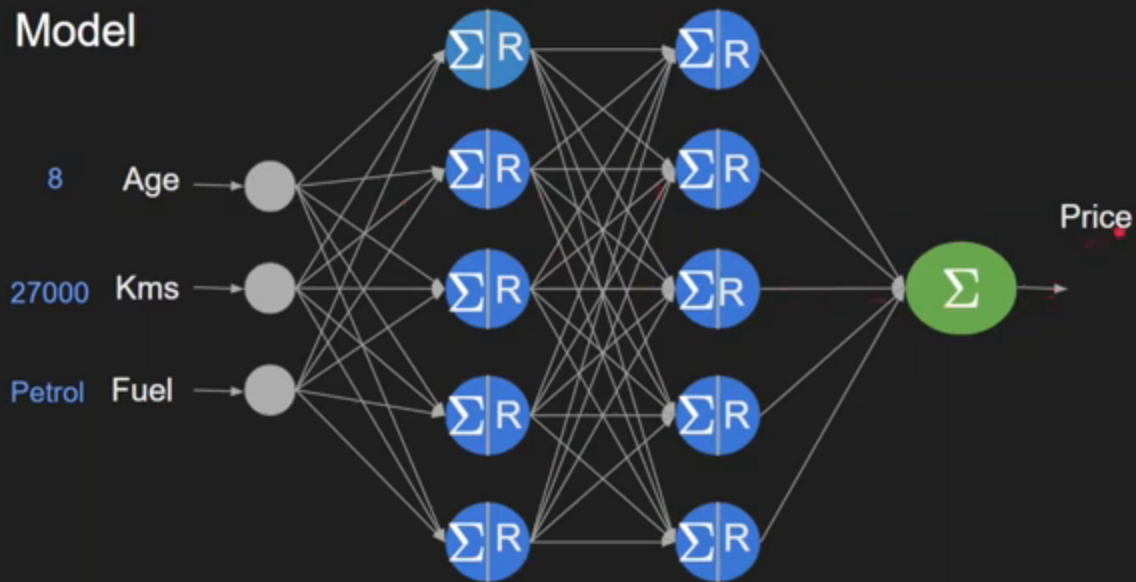
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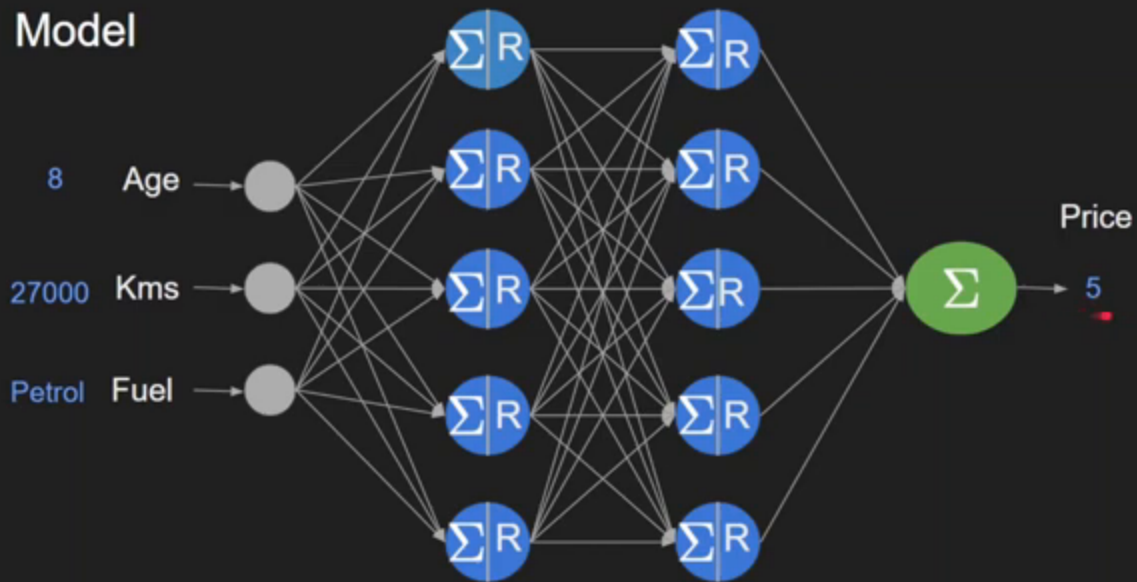
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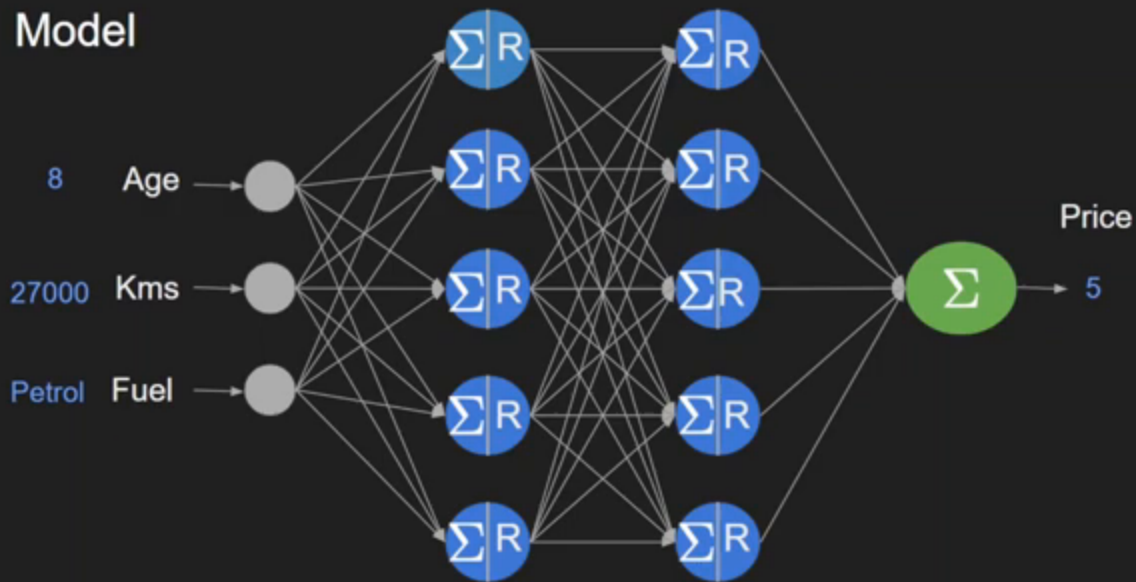
Model



Model



Model



Training

Features (X)

Y

Entry-1	8	27000	Petrol	3.5
Entry-2	9	43000	Diesel	4.75
.
Entry-n	7	33400	Diesel	6.5

Training

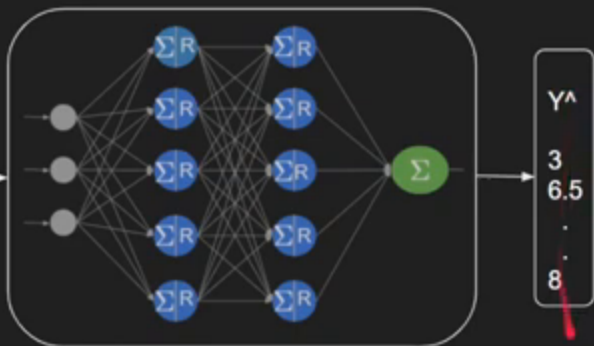
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Training

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Entry-2	9	43000	Diesel	4.75
⋮	⋮	⋮	⋮	⋮
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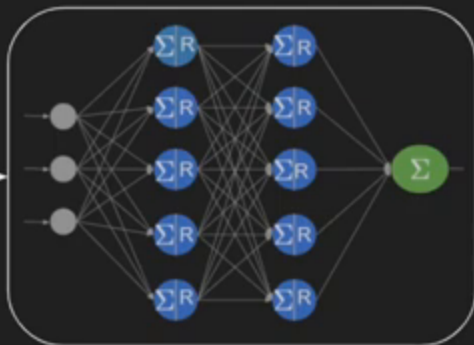
Training

Targets

Features (X)

Y

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⋮		⋮		
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\hat{Y}

3
6.5
⋮
8

Loss

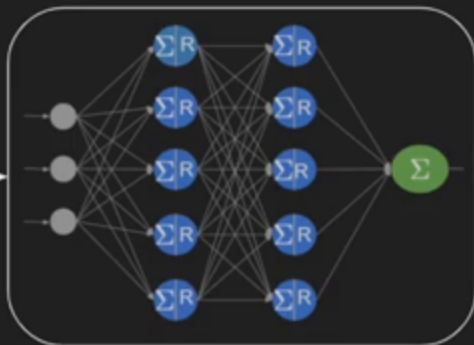
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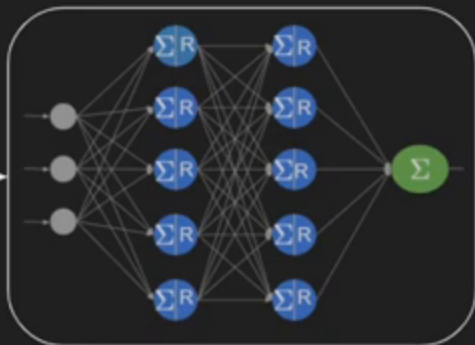
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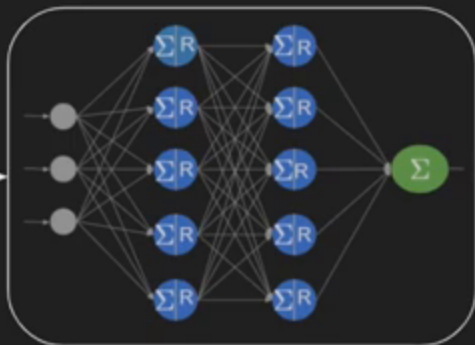
$$\text{Loss} = |Y - Y^{\wedge}|$$

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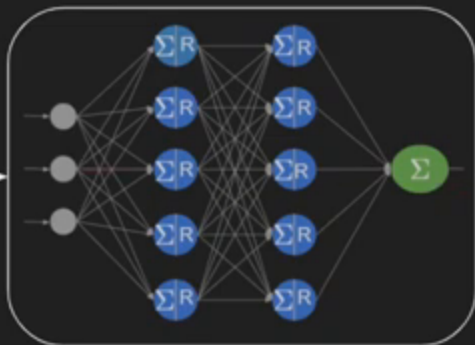
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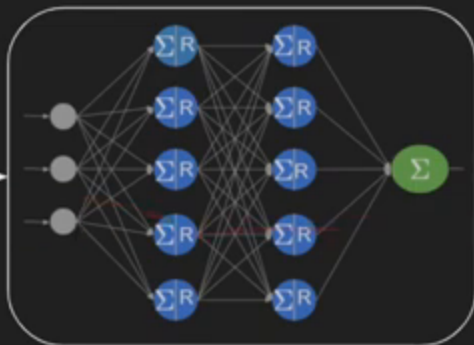
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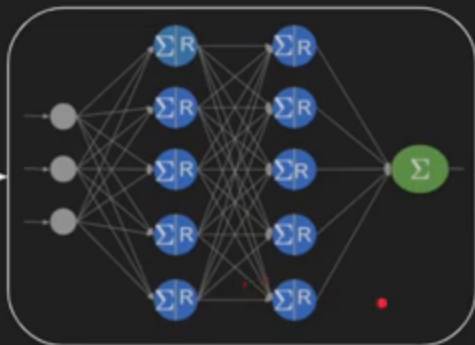
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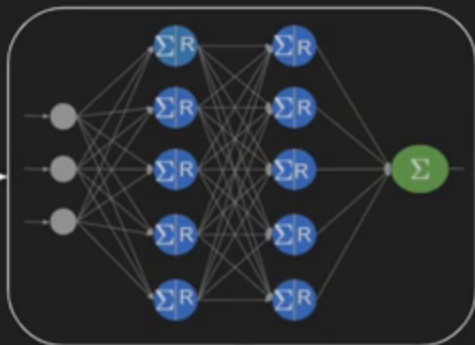
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Loss

Gradient
Descent

Updates
Weights & Biases

Training

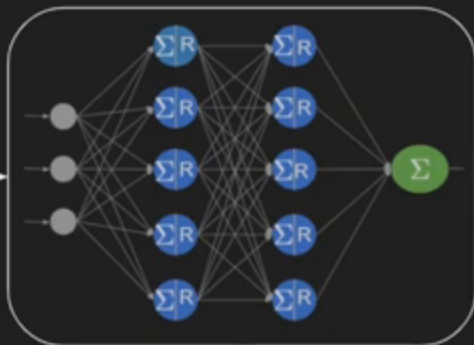
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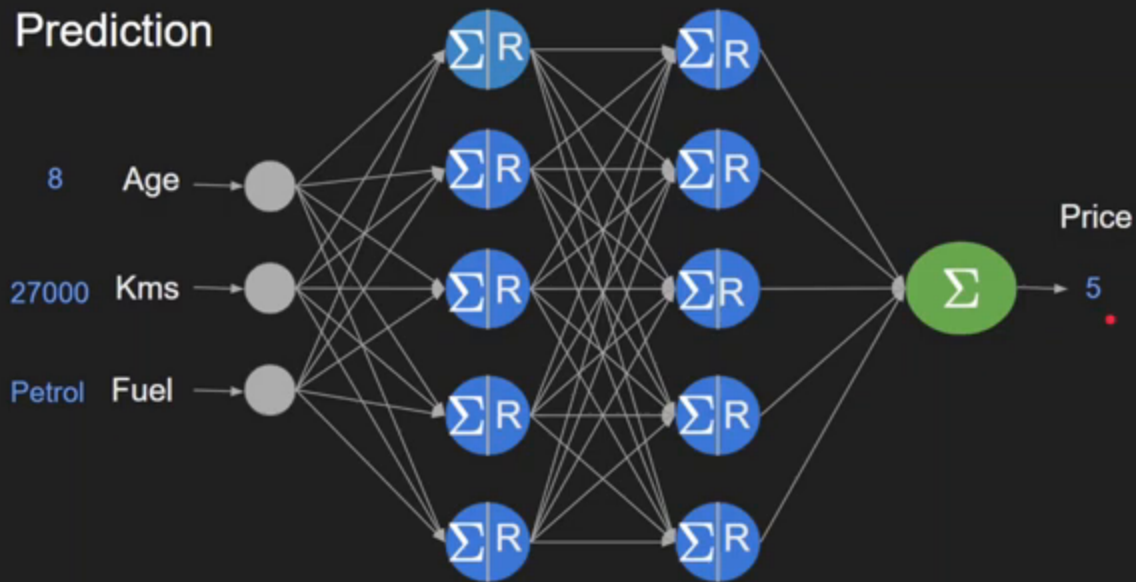
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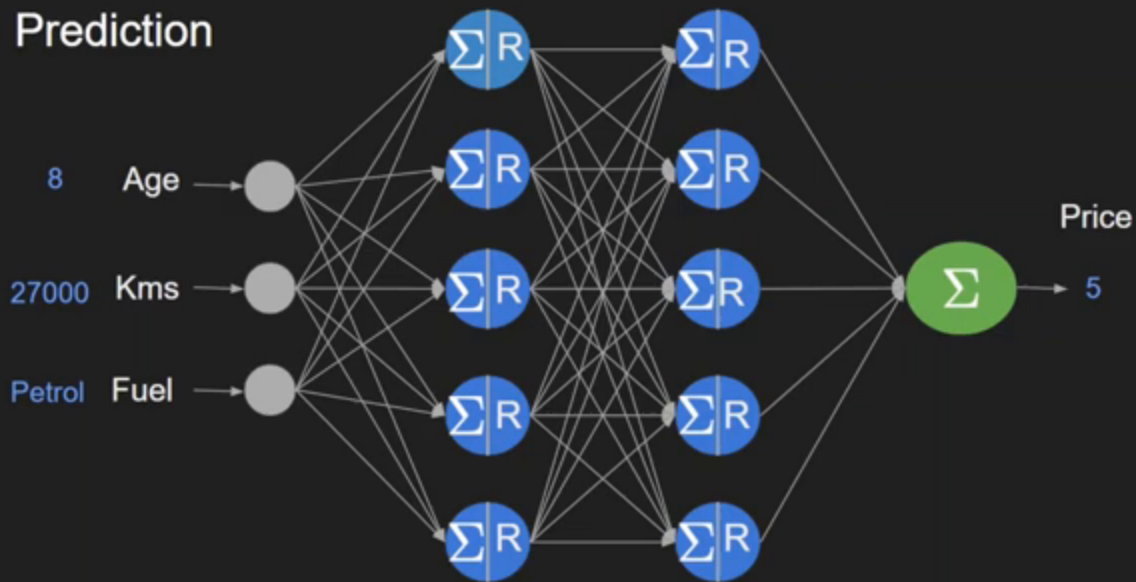
Gradient
Descent

Updates
Weights & Biases

Prediction



Prediction



Training

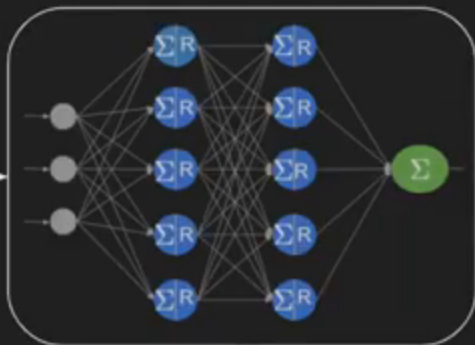
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