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In [3]: import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
from sklearn.ensemble import RandomForestRegressor
```

```
In [4]: data= pd.read_csv("Position_Salaries.csv")
data.head(10)
```

Out[4]:

	Position	Level	Salary
0	Business Analyst	1	45000
1	Junior Consultant	2	50000
2	Senior Consultant	3	60000
3	Manager	4	80000
4	Country Manager	5	110000
5	Region Manager	6	150000
6	Partner	7	200000
7	Senior Partner	8	300000
8	C-level	9	500000
9	CEO	10	1000000

```
In [5]: real_x= data.iloc[:,1:2].values
real_y= data.iloc[:,2].values
```

```
In [6]: reg=RandomForestRegressor(n_estimators=100,random_state=0)
reg.fit(real_x,real_y)
```

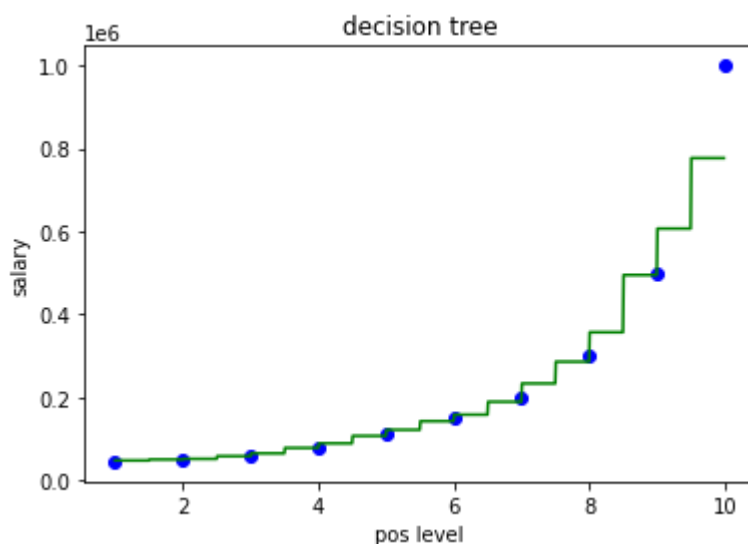
Out[6]: RandomForestRegressor(random_state=0)

```
In [7]: y_pred=reg.predict([[6]])
y_pred
```

Out[7]: array([142600.])

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In [8]: x_grid=np.arange(min(real_x),max(real_x),0.01)
x_grid=x_grid.reshape((len(x_grid),1))
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In [10]: plt.scatter(real_x,real_y,color="blue")
plt.plot(x_grid, reg.predict(x_grid),color="green")
plt.title("decision tree")
plt.xlabel("pos level")
plt.ylabel("salary")
plt.show()
```



In []:

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