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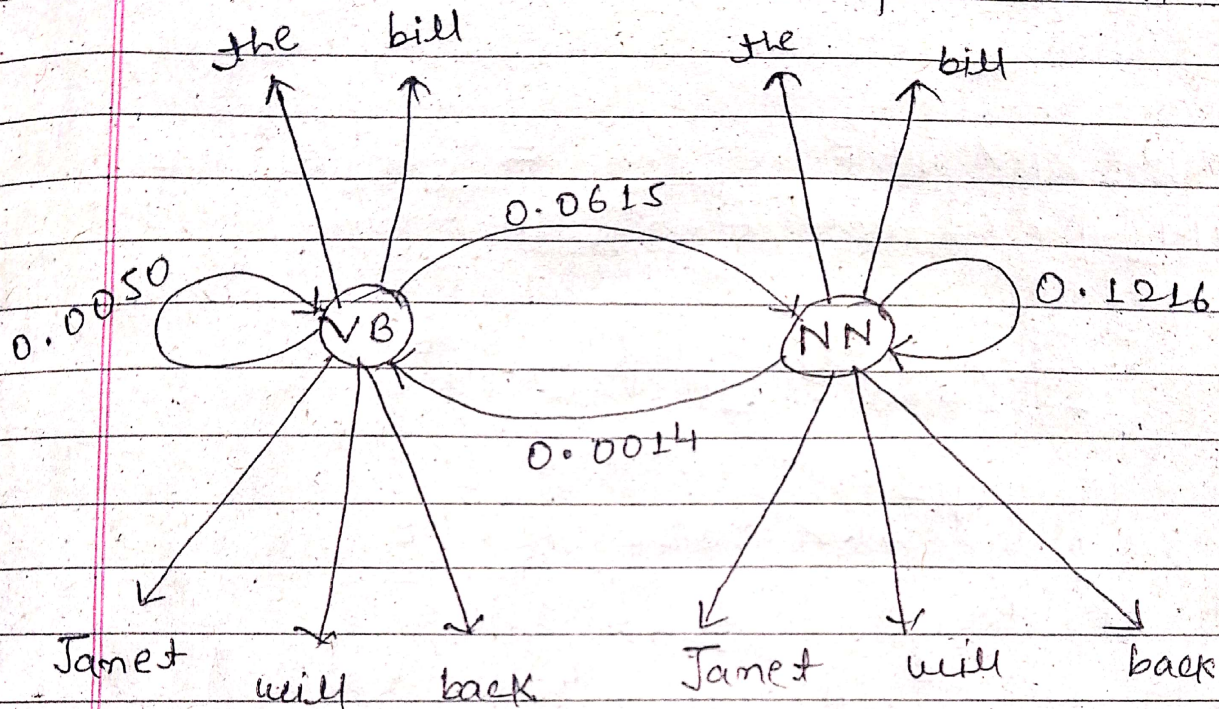
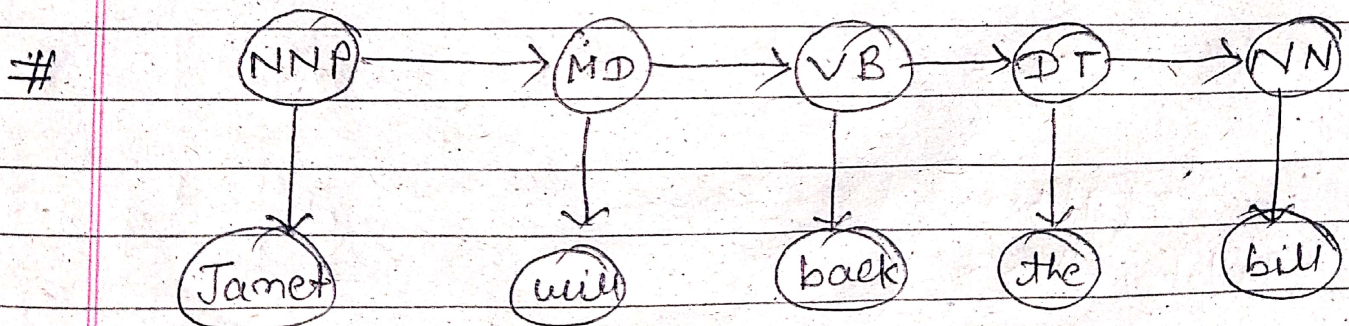
## HMM

States Required

- Hidden state
- observable state

probabilities Required

- Initial probability
- Transition "
- Emission "

Graphical Representation

$$\begin{aligned}
 = & P(\text{NNP}) \times P(\text{Jamet} / \text{NNP}) \times P(\text{MD} / \text{NNP}) \times \\
 & P(\text{will} / \text{MD}) \times P(\text{VB} / \text{MD}) \times P(\text{back} / \text{VB}) \times \\
 & P(\text{DT} / \text{VB}) \times P(\text{the} / \text{DT}) \times P(\text{NN} / \text{DT}) \times P(\text{bill} / \text{NN})
 \end{aligned}$$



$$= 0.2767 \times 0.000032 \times 0.0110 \times$$

$$0.308431 \times 0.7968 \times 0.000672 \times$$

$$0.2231 \times 0.506099 \times 0.4744 \times 0.002397$$

$$= \underline{2.01357071 \times 10^{-15}}$$