

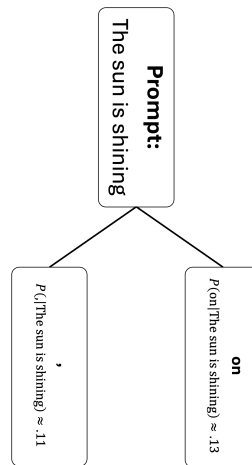
# Beam Search for Text Generation

---

## 1 Beam Search

In this problem, you will use the beam search algorithm to generate text given the prompt “The sun is shining”. To get the probabilities, you should use the `next_token_probs` function in the beam search colab notebook that is linked on the course website.

**The first step is performed for you. Perform as many steps as you can. Use a beam width of 2, and turn the sheet sideways!**



## 2 Evaluating Generated Text with BLEU Score

Compute the modified bigram precision given the following two reference texts:

**Reference 1:** The sun is shining on the horizon

**Reference 2:** The sun shines on the horizon

Candidate Text	$p_1$	$p_2$
The shining sun rises over the horizon		
Over the horizon is the sun		

*If you have extra time, you can compute precision scores for larger values of  $n$ .*