TASK:

Suppose you are given a biased coin with unknown probability of landing heads. Design an experiment to estimate the probability of heads using probability theory. How would you determine the number of coin flips to achieve a certain level of confidence in your estimate? Additionally, how can Python be used to simulate this experiment and visualize the results? Provide a detailed description of your experiment and your reasoning behind your choices.

To estimate the probability of falling on heads for a biased coin whose probability of falling on heads is unknown, we can use a statistical approach called the binomial distribution. A binomial distribution can be thought of as the probability of success or failure in an experiment or investigation repeated several times.

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