The use of email as a communication tool has significantly increased in recent years, making it one of the most crucial internet communication media. However, with the rise in email usage, the issue of spam has also emerged, potentially compromising systems and stealing personal data. Conventional spam filtering systems often fall short in handling increasingly sophisticated spam. Therefore, this study suggests the use of the Long Short-Term Memory (LSTM) method to detect email spam. LSTM, as a type of recurrent neural network architecture, has the ability to capture long-term context in sequential data, such as email text. This study aims to enhance the accuracy of spam email detection by leveraging LSTM's capabilities. In this research, the system will go through several stages, including inbox inspection, email pre-processing, feature extraction, and classification using LSTM. Model evaluation will be conducted using metrics such as accuracy, precision, recall, and F1-score. It is expected that the results of this study will make a significant contribution to detecting and classifying spam emails with higher accuracy than conventional methods.