Name _____

Label the Blueprint - Understanding AI Systems Answer Key

Step	Correct Label	Sample Explanation
1. The system collects the email text, sender address, and links.	**Input**	This is the raw information the AI needs in order to begin analyzing the email.
2. The system checks for patterns such as suspicious words or unusual links.	**Processing**	The AI applies rules and algorithms to examine the input and look for patterns linked to spam.
3. A trained component makes predictions about whether the email is spam.	**Model**	The model has already been trained on past data, so it can quickly recognize and classify new emails.
4. The system moves the email to spam or to the inbox.	**Output**	This is the visible result of the system's decision — where the email ends up.
5. User corrections (marking "Not Spam" or "Spam") are sent back to the system.	**Feedback**	Feedback provides new information to help the AI learn from mistakes and improve its accuracy.

Reflection Question (Sample Responses)

Why is feedback especially important for an AI spam filter? What might happen if the system never received feedback?

- *Sample Answer 1:* Feedback helps the spam filter keep learning and adjusting to new tricks used by spammers. Without feedback, the system would fall behind and keep making the same mistakes.

- *Sample Answer 2:* If the system never received feedback, it would not know when it made errors. Over time, more spam would slip into the inbox and important emails might be sent to spam incorrectly.

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