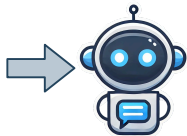


Q: Who is the spouse of the ex-president of USA?



LLM

1. Planning

Relation path z

$z = \text{ex-president} \rightarrow \text{spouse_of}$

Step 1. Find the ex-president of USA.

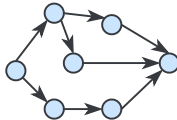
Step 2. Find the spouse of that person.

3. Reasoning

Step 1. The ex-president of “USA” is “Donald Trump”
Step 2. “Donald Trump” is the spouse of “Melania Trump”
Thus, the answer is “**Melania Trump**”.

2. Retrieval

KG



Reasoning path w_z

$w_z = \text{USA} \xrightarrow{\text{ex-president}} \text{Donald Trump} \xrightarrow{\text{spouse_of}} \text{Melania Trump}$

Execute the plan on KGs to **retrieve** reasoning paths.