

```
import tiktoken
```

```
from fastapi import HTTPException
```

```
import asyncio
```

```
# logger.info("Starting the agent API server...")
```

```
def count_tokens(text: str) -> int:
```

```
    """
```

```
    Counts the number of tokens in the given text.
```

```
    Args:
```

```
        text (str): The input text to count tokens from.
```

```
    Returns:
```

```
        int: The number of tokens in the text.
```

```
    Raises:
```

```
        HTTPException: If there is an error counting tokens.
```

```
    """
```

```
    try:
```

```
        # Get the encoding for the specific model
```

```
        enc = tiktoken.get_encoding("cl100k_base")
```

```
        # Encode the text
```

```
        tokens = enc.encode(text)
```

```
# Count the tokens

return len(tokens)

except Exception as e:

    raise HTTPException(status_code=400, detail=f"Error counting tokens: {e}")
```

```
async def count_tokens_async(text: str) -> int:
```

```
    """
```

Counts the number of tokens in the given text.

Args:

text (str): The input text.

Returns:

int: The number of tokens in the text.

Raises:

HTTPException: If there is an error counting tokens.

```
    """
```

```
loop = asyncio.get_event_loop()
```

```
try:
```

```
    # Get the encoding for the specific model
```

```
    enc = await loop.run_in_executor(None, tiktoken.get_encoding, "cl100k_base")
```

```
    # Encode the text
```

```
tokens = await loop.run_in_executor(None, enc.encode, text)
```

```
# Count the tokens
```

```
return len(tokens)
```

```
except Exception as e:
```

```
    raise HTTPException(status_code=400, detail=f"Error counting tokens: {e}")
```