

# Policy Manual Chatbot for People and Culture Department

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*EXPECTED PROJECT COSTS*

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## Project Overview

This proposal outlines the expected costs associated with implementing a WhatsApp-based policy manual chatbot for the People and Culture department. The chatbot will handle user inquiries related to Strathmore University's People and Culture policies via WhatsApp, with each interaction involving a question and response facilitated through an API call.

## Key Assumptions

1. Number of Users: 100
2. Questions per User per Day: 20
3. Number of Days in a Month: 30

Based on the above assumptions we are going to make the following estimates listed below

## Expected Daily Operations

### **1. Total Questions per Day:**

$$100 \text{ users} \times 20 \text{ questions/user} = 2,000 \text{ questions/day}$$

### **2. Total Messages per Day:**

$$2,000 \text{ questions/day} \times 2 \text{ messages/question} = 4,000 \text{ messages/day}$$

### **3. Total API Calls per Day:**

$$2,000 \text{ API calls/day}$$

## Monthly Operations

### 1. Total Questions per Month:

2,000 questions/day  $\times$  30 days = 60,000 questions/month

### 2. Total Messages per Month:

4,000 messages/day  $\times$  30 days = 120,000 messages/month

### 3. Total API Calls per Month:

2,000 API calls/day  $\times$  30 days = 60,000 API calls/month

## Cost Breakdown

### 1. Twilio WhatsApp Messaging

- a) **Cost per Session Message:** \$0.005
- b) **Monthly Messages:** 120,000
- c) **Monthly Cost:**

120,000 messages/month  $\times$  \$0.005 message = \$600

### 2. Groq API Calls

- a) **Cost per API Call:** \$0.01
- b) **Monthly API Calls:** 60,000
- c) **Monthly Cost:**

60,000 API calls/month  $\times$  \$0.01/call = \$600

## **Expected Total Monthly Cost**

- 1. Twilio Session Messages Cost: \$600**
- 2. Groq API Calls Cost: \$600**

## **Expected Total Monthly Expense:**

\$600 (Twilio) + \$600 (Groq) = \$1,200

NB: Include also the monthly cost of the twilio whatsapp number which is \$1.15

## **Conclusion**

The projected monthly cost for implementing the WhatsApp-based policy manual chatbot for the People and Culture department is \$1,200. This includes costs for Twilio session messages and Groq API calls. This estimation ensures the project can handle the expected volume of interactions efficiently while maintaining a predictable budget.

## **API and Service Links**

Twilio WhatsApp Messaging: [\[Twilio WhatsApp API\]](#)

Groq API: [\[Groq API Documentation\]](#)