

Experiment 2

Aim: To build a cognitive text-based application to understand context for a customer service Application/Insurance/Healthcare/ Application/Smarter Cities/Government etc

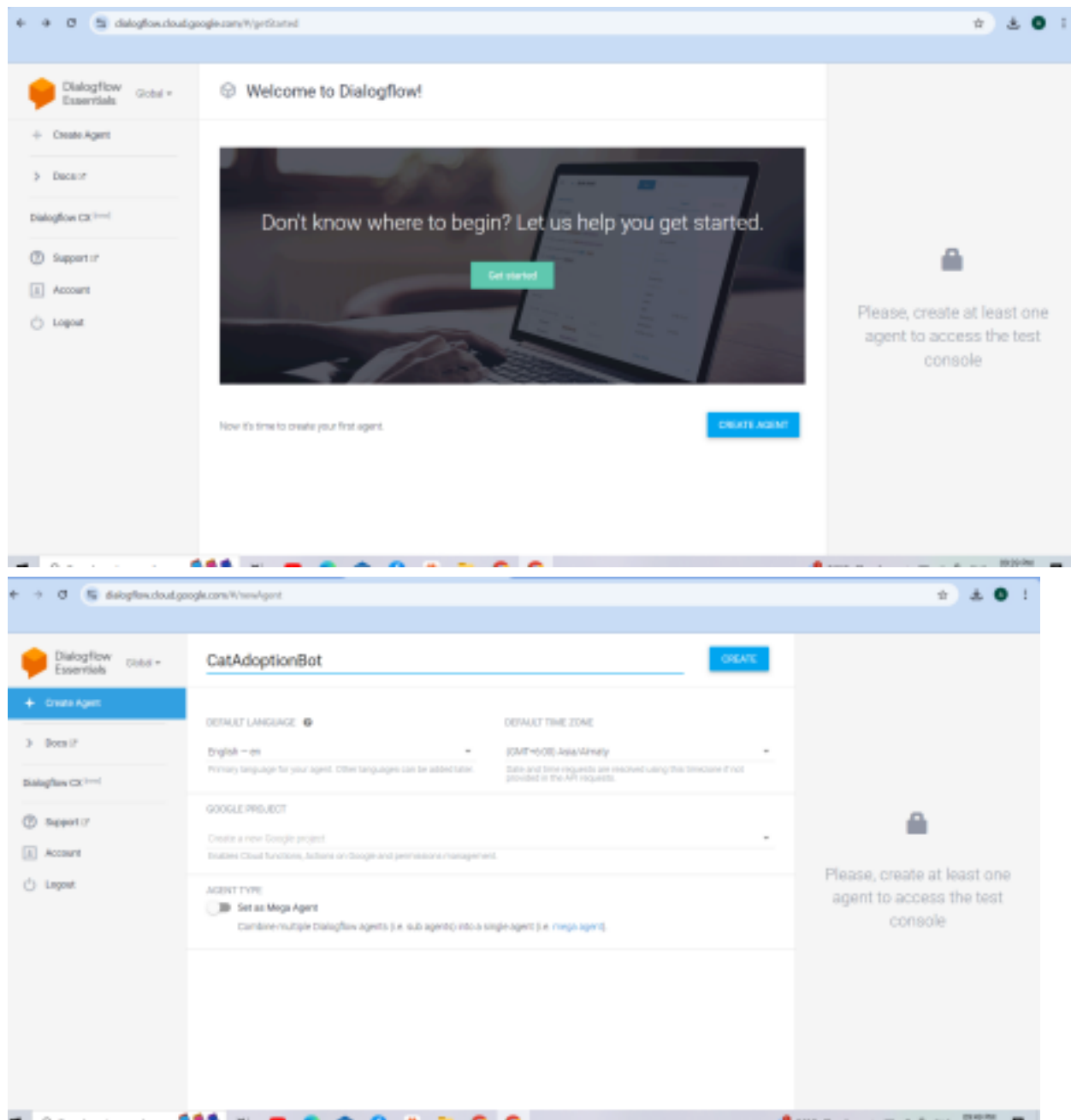
Theory:

A **Cognitive Text-Based Application** is a software application designed to understand, interpret, and respond to text-based inputs in a manner that mimics human-like cognitive abilities. These applications use advanced technologies such as natural language processing (NLP), machine learning (ML), and artificial intelligence (AI) to process and analyze text, enabling them to comprehend the context, intent, sentiment, and specific details within the input.

Key Features of a Cognitive Text-Based Application:

1. **Contextual Understanding:** It can grasp the context of a conversation or query, which allows it to provide more accurate and relevant responses.
2. **Intent Recognition:** The application can identify the underlying intent behind a user's message, such as asking a question, making a request, or expressing an emotion.
3. **Sentiment Analysis:** It can detect the emotional tone of the input, which is useful for tailoring responses in customer service or healthcare scenarios.
4. **Entity Recognition:** It identifies and understands specific entities (e.g., names, dates, product names) within the text, enabling more precise interaction.
5. **Learning and Adaptation:** Through machine learning, the application can improve over time by learning from interactions, adjusting to new contexts, and refining its understanding.
6. **Dynamic Response Generation:** It can generate or select responses based on the context and intent, offering personalized and contextually appropriate answers.

Code and Output:



Dialogflow Essentials

Global

Loading agents...
on

Intents

Entities

Knowledge

Fulfillment

Integrations

Training

Validation

History

Analytics

Prebuilt Agents

Small Talk

Intents

CREATE INTENT

Try it now

Search intents

Default Fallback intent

Default Welcome intent

No regular intents yet. [Create the first one.](#)

Intents are mappings between a user's queries and actions fulfilled by your software. [Read more here.](#)

Before you start, check out [Prebuilt Agents](#), a collection of agents developed by the Dialogflow team.

Please see test console above to try a sentence.

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SAVE

Try it now

Template phrases are deprecated and will be ignored in training time. [More details here.](#)

When a user says something similar to a training phrase, Dialogflow matches it to the intent. You don't have to create an exhaustive list. Dialogflow will fill out the list with similar expressions. To extract parameter values, use [annotations](#) with available [system](#) or [custom](#) entity types.

Add user expression

are taking admission for EXTC

PARAMETER NAME	ENTITY	REQUIRED VALUE
branches	@Branches	EXTC

I will take admission next year

Action and parameters

USER SAYS
just going to say hi

COPY URL

DEFAULT RESPONSE
Hi How are you doing?

CONTEXTS
__system__counters__

RESET CONTEXTS

INTENT
Default Welcome Intent

ACTION
input.welcome

DIAGNOSTIC INFO

Dialogflow Essentials

Global

Loading agents...
on

Intents

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SAVE

Try it now

Action and parameters

Enter action name

REQUIRED	PARAMETER NAME	ENTITY	VALUE	IS LIST
<input type="checkbox"/>	one-period	@sys.date-period	date-period	<input type="checkbox"/>
<input type="checkbox"/>	branches	@Branches	\$branches	<input type="checkbox"/>
<input type="checkbox"/>	Enter name	Enter entity	Enter value	<input type="checkbox"/>

+ New parameter

Responses

USER SAYS
just going to say hi

COPY URL

DEFAULT RESPONSE
Hi How are you doing?

CONTEXTS
__system__counters__

RESET CONTEXTS

INTENT
Default Welcome Intent

ACTION
input.welcome

DIAGNOSTIC INFO

Dialogflow Essentials

Global

Loading agents...

en

+

Intents

+

Entities

+

Knowledge

help

Fulfillment

Integrations

Training

Validation

History

Analytics

Education

SAVE

Responses

+

DEFAULT

+

Test Response

+

1

Yes, I will take admission \$date-period

2

Fees is Rs. 50K for \$branches

3

Enter a text response variant

ADD RESPONSES

Get this intent as end of conversation

?

Fulfillment

+

Try it now

+

USER SAYS

just going to say hi

COPY URL

DEFAULT RESPONSE

+

Hi How are you doing?

CONTEXTS

RESET CONTEXTS

__system_countdown__

INTENT

Default Welcome Intent

ACTION

input welcome

DIAGNOSTIC INFO

Dialogflow Essentials

Global

Loading agents...

en

+

Intents

+

Entities

+

Knowledge

help

Fulfillment

Integrations

Training

Validation

History

Analytics

Branches

SAVE

Define synonyms

?

Reopen entity

?

Allow automated expansion

?

Fuzzy matching

?

CUPIV

CUPIV

INPT

INPT

EXTC

EXTC

ETRX

ETRX

ALDS

ALDS

Click here to edit entry

+ Add a new

Try it now

+

USER SAYS

just going to say hi

COPY URL

DEFAULT RESPONSE

+

Hi How are you doing?

CONTEXTS

RESET CONTEXTS

__system_countdown__

INTENT

Default Welcome Intent

ACTION

input welcome

DIAGNOSTIC INFO

Tanvi

Use following code to integrate this agent into your site:

```
<iframe width="350" height="400" allow="microphone;" src="http://console.dialogflow.com/api-client/demo/embedded/96e94387-08ef-41ed-802b-f7708be08957"></iframe>
```

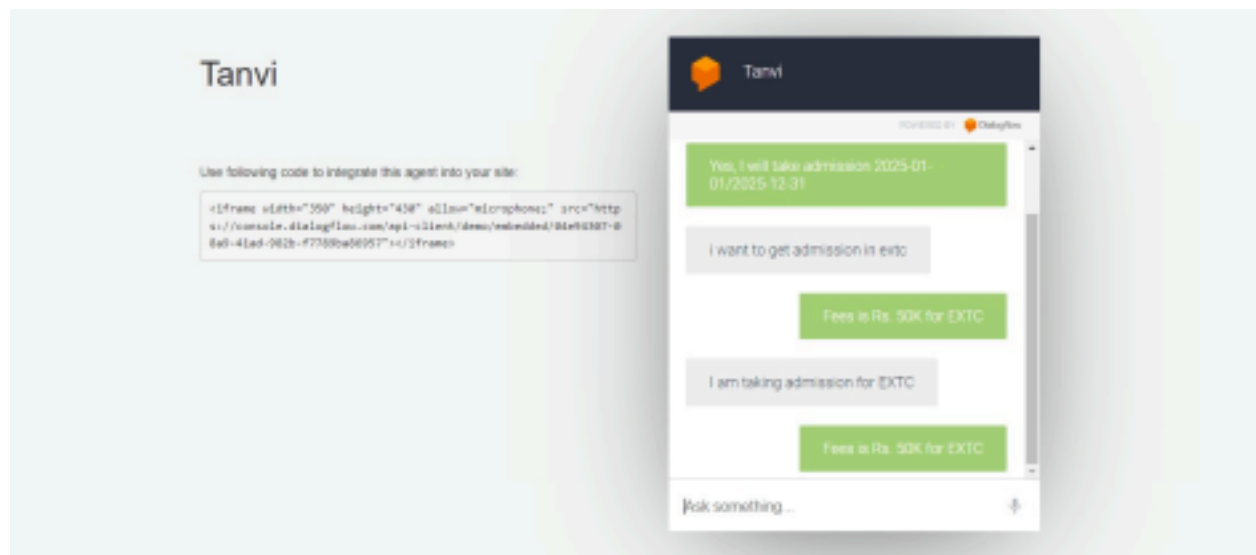
Tanvi

POWERED BY Dialogflow

I will take admission next year.

Yes, I will take admission 2025-01-01/2025-12-31

Ask something...



Conclusion:

Cognitive text-based applications represent a significant step forward in making human-computer interactions more intuitive, effective, and aligned with how humans naturally communicate.