

Tip of the Tongue (ToT) IR: ToT Query data collection with Human Contractors

Interface Design Report

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Outline

- Front-end

- Flow chart
- Implementations

- Back-end

- Offline

- Data collection
 - Aggregate page views
 - Post processing and binning

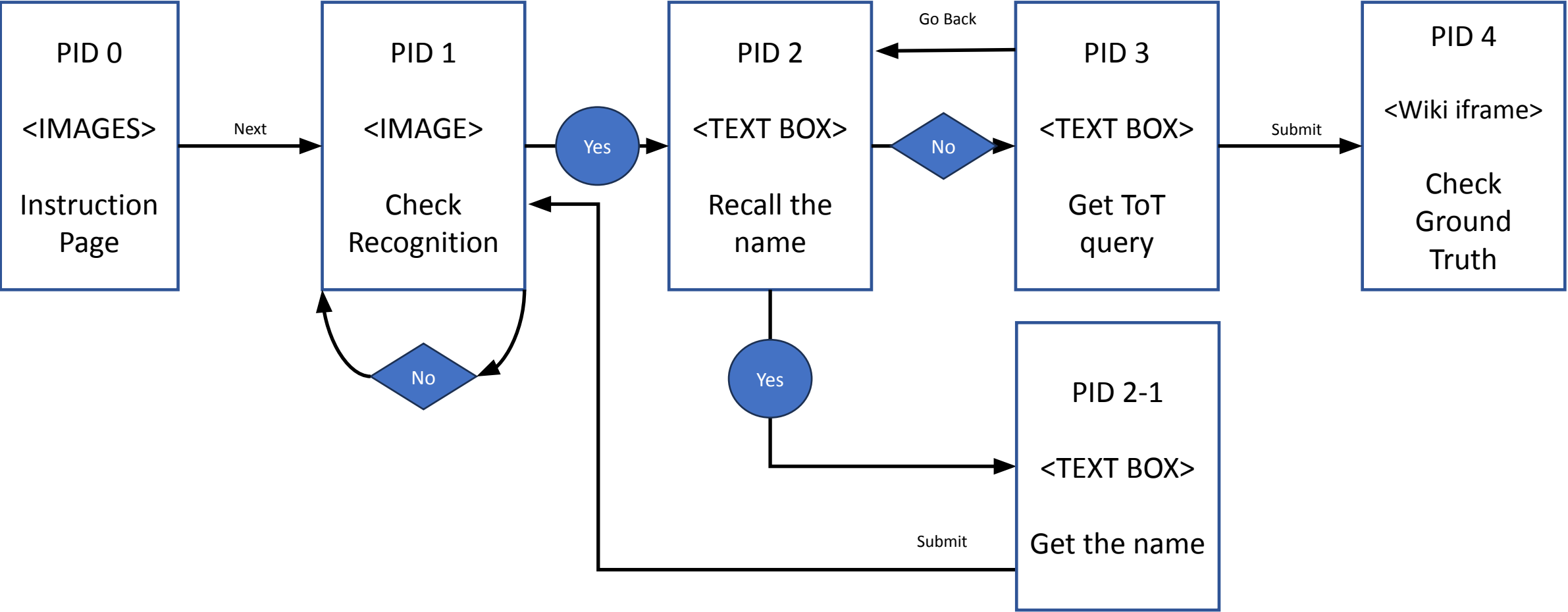
- Online (create)

- Draw image based on given drawing strategy (a/b testing)
 - Host drawn images to S3
 - Create XML string based on front-end template
 - Archive xml files locally
 - Publish HIT
 - Log HIT ID, and HIT URL in DynamoDB

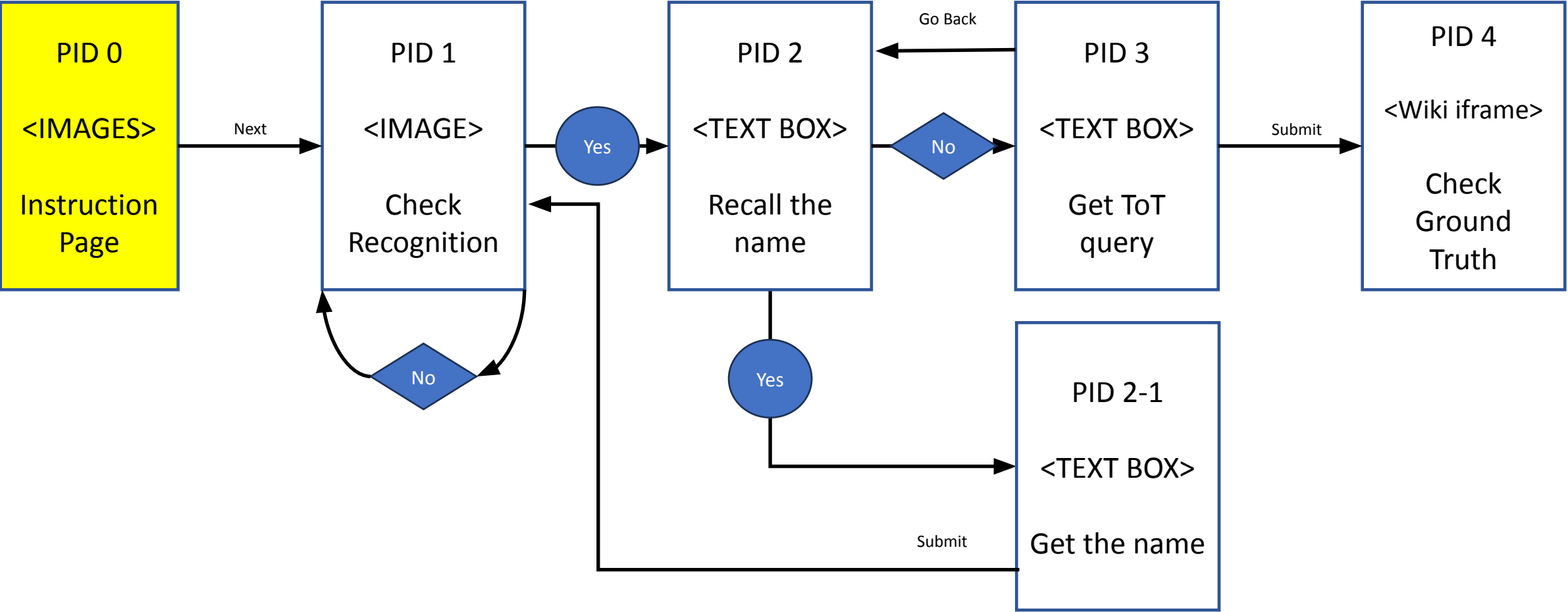
- Online (retrieve): possibly periodic triggering by cronjob

- Check finished HITs
 - For each HIT, get submitted assignments and either approve or reject
 - For the approved ones, log the record in DynamoDB

Front-end: Flow chart



Front-end: Implementation (PID (page ID) 0)



Front-end: Implementation (PID 0 - instruction page)

If this is your first time doing this HIT, please read the instructions below carefully. Thank you.

You will be shown a series of images of popular movies. They might correspond to a poster of the movie or a scene from the movie. While you go through each image, see if you recognize the movie. If you recognize the movie, we will ask if you remember the name. If you recognize the movie, but **DO NOT** remember the name, then you are in a "**Tip of the Tongue**" (**ToT**) state. This is like in being a situation where you can't remember a word but it's on the "tip of your tongue"!

On the internet, there are online communities (for example, on Reddit) that help people resolve their ToT information needs with the help of other community members. On such communities, someone will start a new thread by posting a ToT information request. Information requests are about a paragraph long. In response to a ToT request, community members will then take turns guessing the correct answer. The thread ends when the original poster confirms that someone guessed the correct answer.

If you are in a ToT state, we want you to pretend that you are posting a ToT information request on one of these online communities. Your information request should be about a paragraph long. Please include any information that comes natural to you. Also, please include **ANY** and **ALL** information that you think might help other community members determine the correct answer. Typical ToT information requests include memories, things you know and don't know, comparisons, and mentions of uncertainty, to name just a few.

After submitting your ToT information request, you will be shown a Wikipedia page that might correspond to the correct answer. You will be asked to confirm if the Wikipedia page corresponds to the correct answer. We hope that the Wikipedia page corresponds to the correct answer. However, it is completely okay to indicate that it does not.

To illustrate, consider the following movie scene:



This is an example of a GOOD ToT information request:

I saw this movie when I was young, but I guess it was released before I was born, so probably before 2000. The storyline goes like this. A male character and a female character were on a cruise ship, but the ship hits a big iceberg and starts to sink. I think they both die (not sure of this), but I remember a specific scene where the male character was holding on to a wood plank in a cold water with very pale blue face. I don't know the ending, but I heard this was based on a true story. There's also a very famous movie theme song. Genre can be romance, disaster and/or historic. What's the name of this movie?

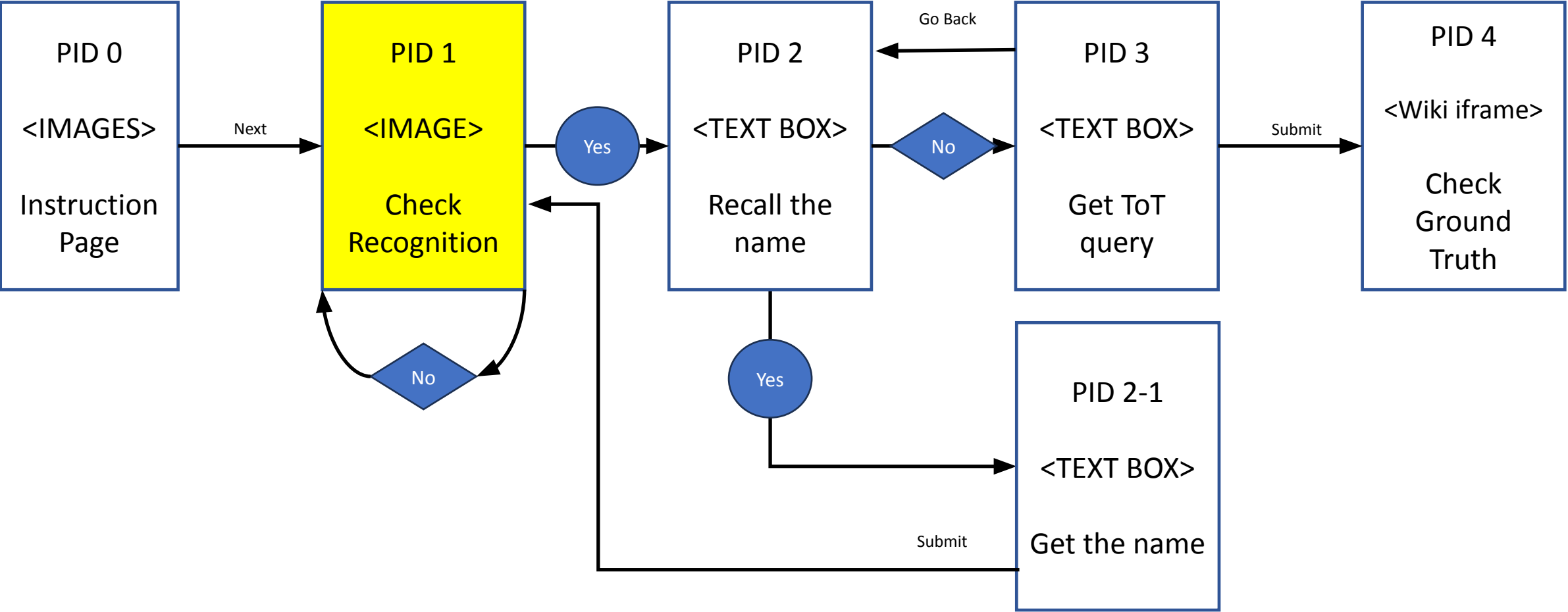
This is an example of a GOOD ToT information request:

I saw this movie when I was young, but I guess it was released before I was born, so probably before 2000. The storyline goes like this. A male character and a female character were on a cruise ship, but the ship hits a big iceberg and starts to sink. I think they both die (not sure of this), but I remember a specific scene where the male character was holding on to a wood plank in a cold water with very pale blue face. I don't know the ending, but I heard this was based on a true story. There's also a very famous movie theme song. Genre can be romance, disaster and/or historic. What's the name of this movie?

This is an example of a BAD ToT information request:

The cruise ship sinked in ocean and there were two main characters.

Front-end: Implementation (PID 1)



Front-end: Implementation (PID 1)



Do you recognize this movie?

☐ Yes ☐ No

No
→

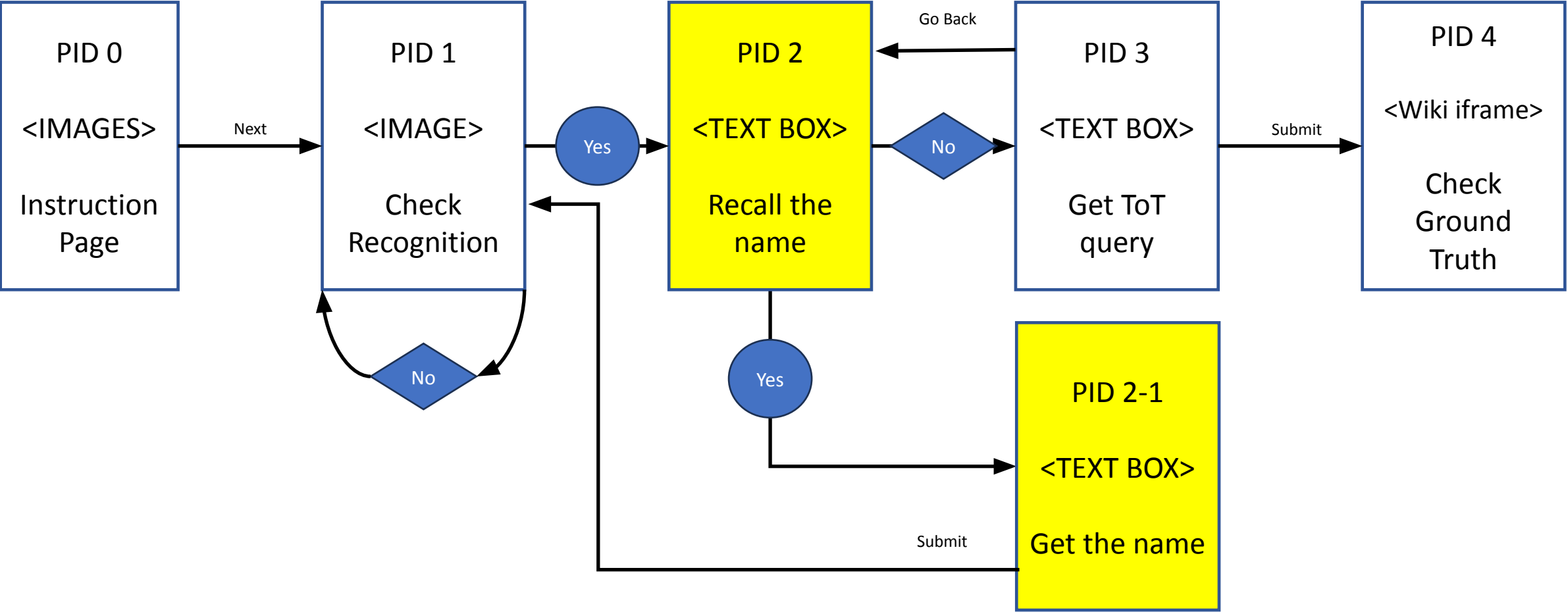


Do you recognize this movie?

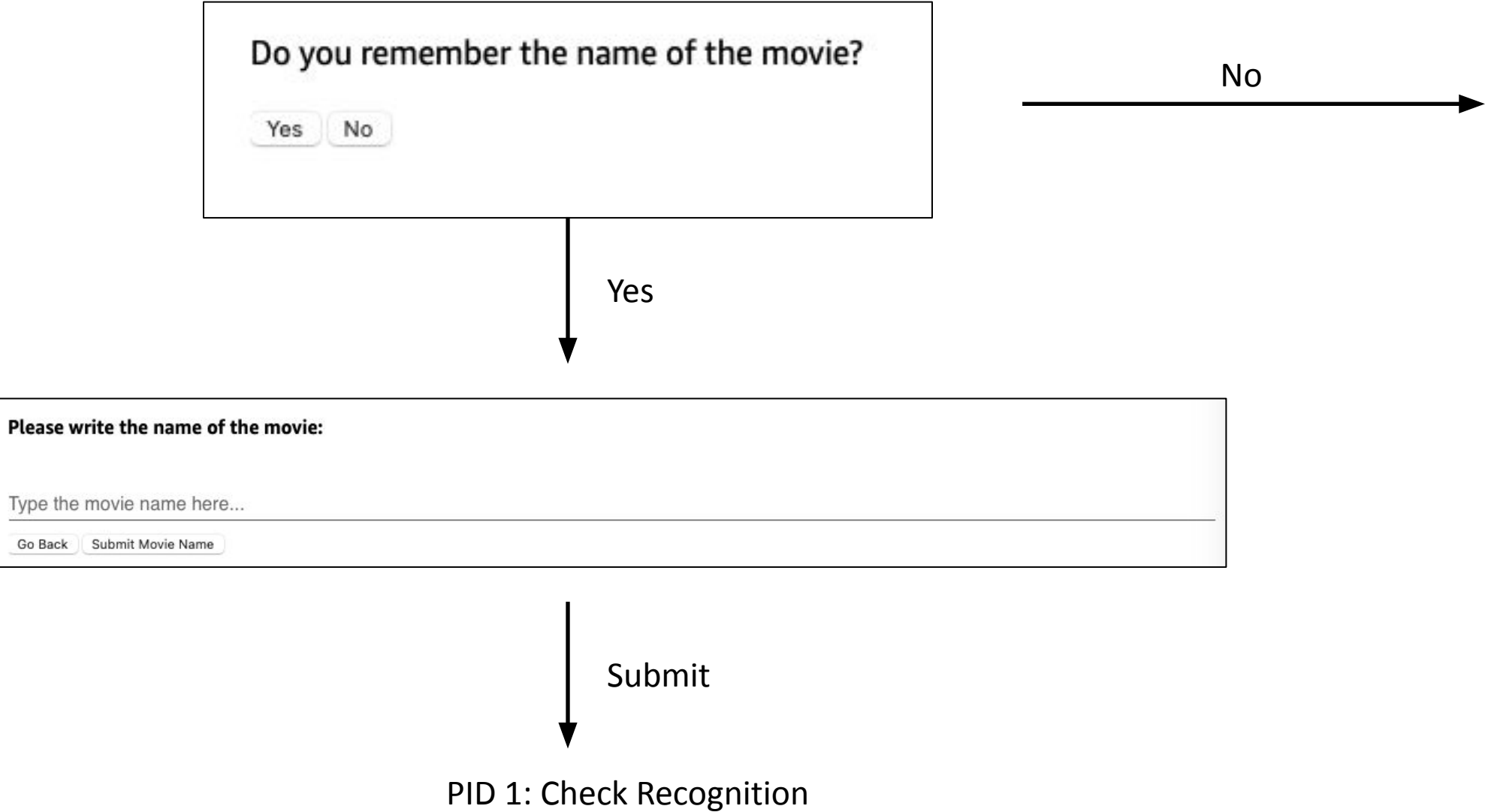
☐ Yes ☐ No

Yes
→

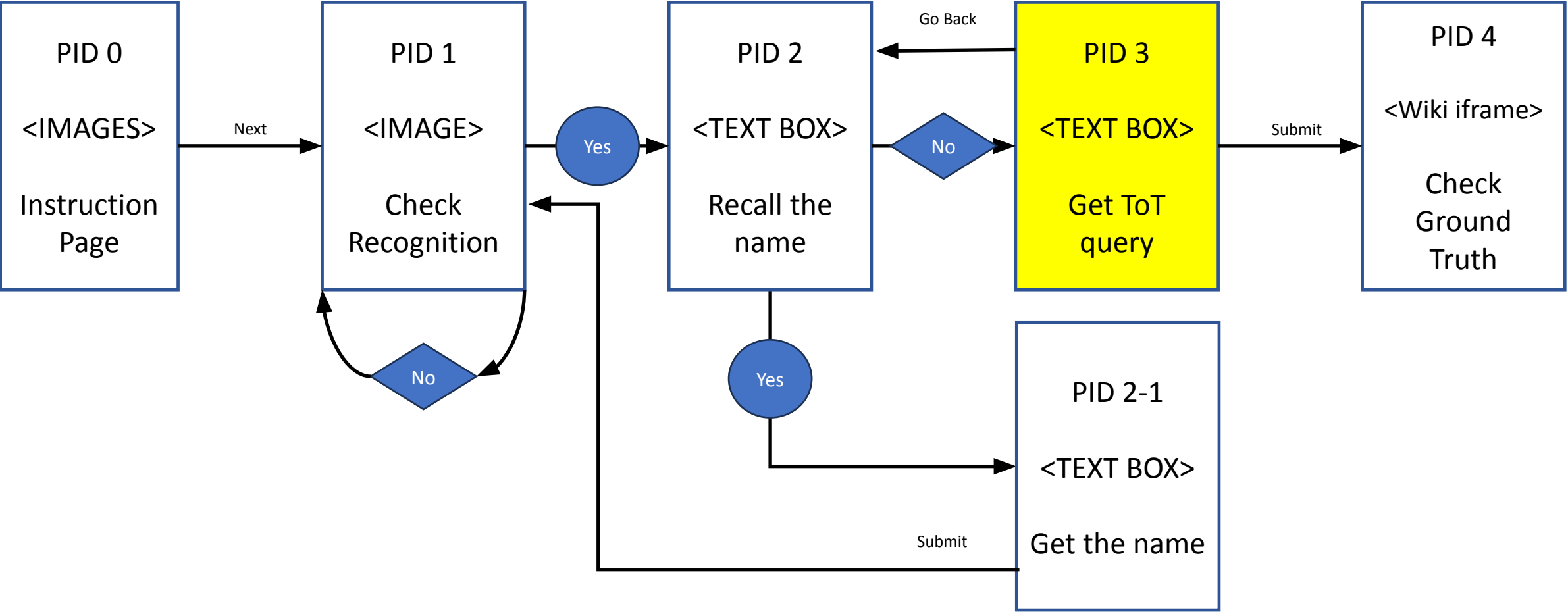
Front-end: Implementation (PID 2)



Front-end: Implementation (PID 2)



Front-end: Implementation (PID 3)



Front-end: Implementation (PID 3 - ToT query input page)

Please input your ToT information request:

0 characters

Please input text in the text box below.

Type your ToT information request here...

Go Back

Submit ToT information request

Please input your ToT information request:

143 characters

The text is too short!

I think I watched this movie with my family when I was around ten, so should be around 2005. It was about elephant fighting with other animals.

Go Back

Submit ToT information request

Please input your ToT information request:

209 characters

Can you be more specific?

I think I watched this movie with my family when I was around ten, so should be around 2005. It was about elephant fighting with other animals. The geological and periodical background is India in ancient time

Go Back

Submit ToT information request

Making user put adequate length of content with password-creation-like interface

- Criteria:
- Short (red): less than 200 characters
 - Medium (orange): more than 200 but less than 300 characters
 - Good (green): more than 300 characters

Please input your ToT information request:

382 characters

I think I watched this movie with my family when I was around ten, so should be around 2005. It was about elephant fighting with other animals. The geological and periodical background is India in ancient time. There was a war between two empires and they were riding elephants in the war. In the end, the head of the troop marries with the queen and becomes the king of the empire.

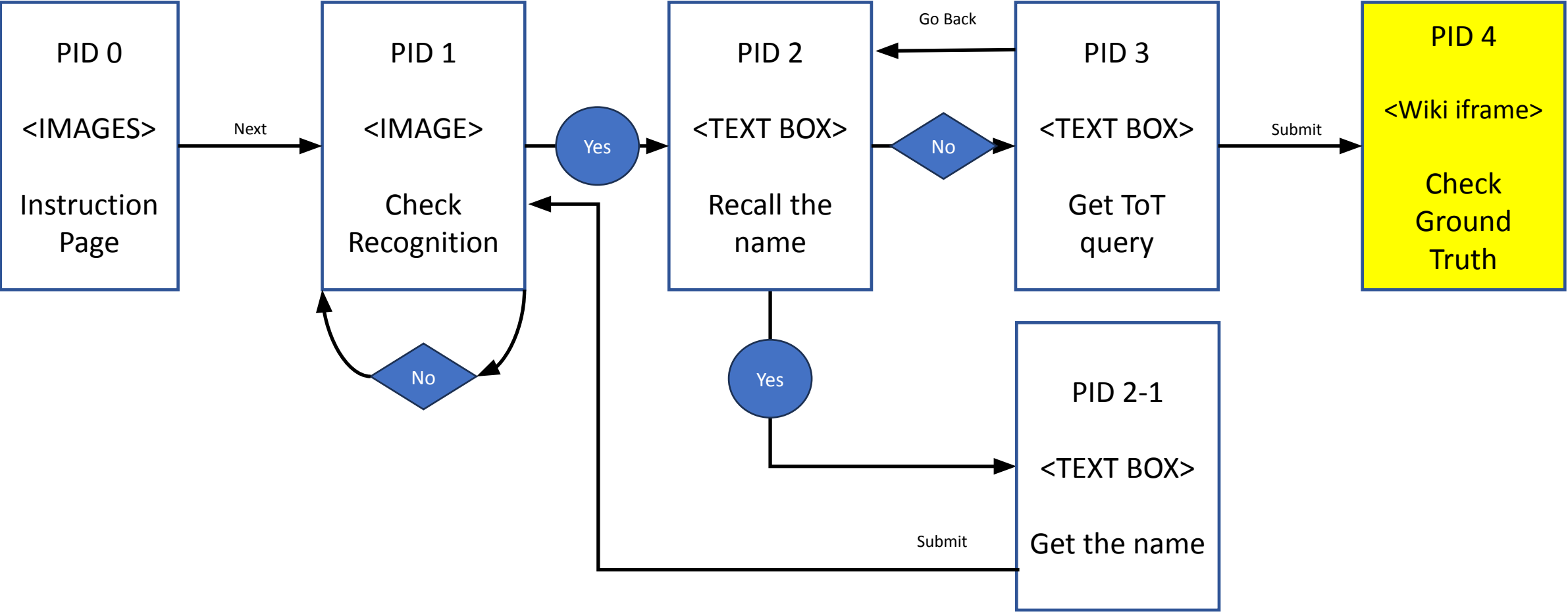
Go Back

Submit ToT information request

Can go back to PID 2

Submit

Front-end: Implementation (PID 4)



Front-end: Implementation (PID 4)

check the answer →

Does this Wikipedia page describe the movie you recalled?

Yes

No

Front-end: Implementation (PID 4)

You reach the end of this task. You either finished the task or running out of all the images. Now you may submit the form. Thanks!

Submit

Back-end: Offline



Statue of Liberty

Liberty Enlightening the World



The Statue of Liberty in October 2015

Location

Liberty Island

New York City

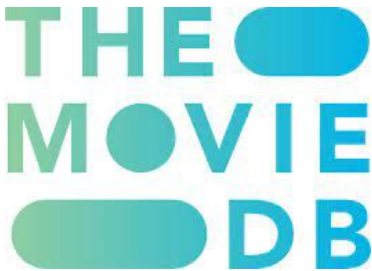
Coordinates

40°41′21″N 74°2′40″W

Height

Height of copper statue (to torch): 151 feet 1 inch (46 meters)

From ground level to torch: 305 feet 1 inch (93 meters)



TMDB backdrops

Future:

Celebrity

Kitchen Utensil

...

store

CMU Server

sort by pageviews

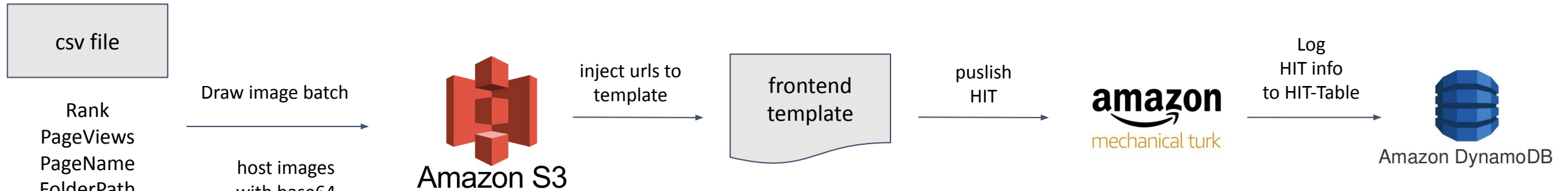
- Very High
- High
- Medium
- Low
- Very Low

csv file

- Rank
- PageViews
- PageName
- FolderPath
- HasImage
- ImageFilePath
- PageViewsBin

Info Box Images

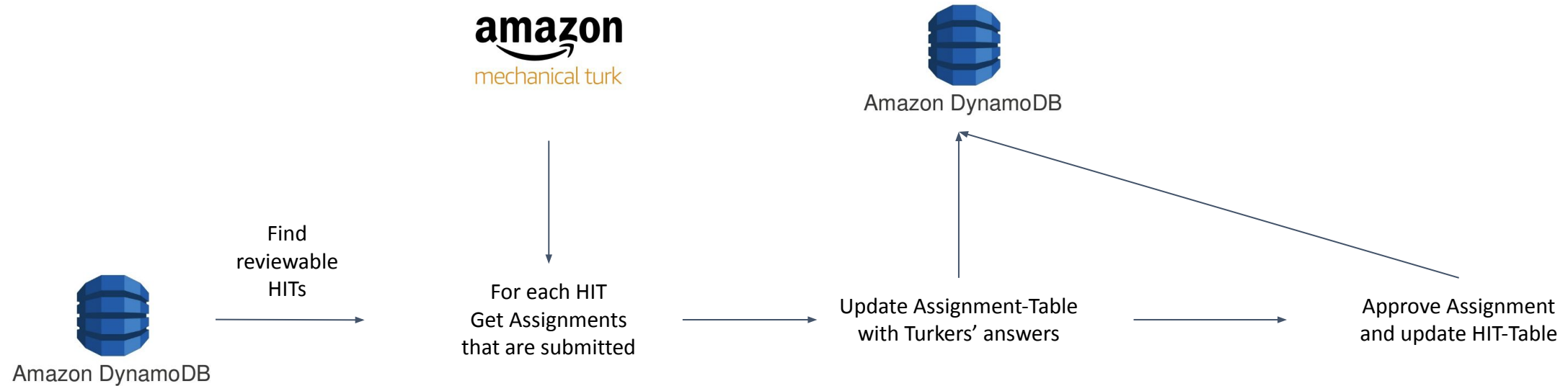
Back-end: Online (create HITs)



HIT-Table

- HITID (PK)
- HITTypeID
- Domain
- AllAssignmentsDone
- AssignmentID
- Seed

Back-end: Online (retrieve assignments and approve)



HIT-Table

- HITID (PK)
- HITTypeID
- Domain
- AllAssignmentsDone
- AssignmentID

Assignment-Table

- AssignmentID (PK)
- HITID (SK)
- WorkerID
- ToTImage
- PreToTLog
- Phase 1 ... Phase 4
- TimeStamps
- TurnTookToToT