



PlatePals

AC215 Presentation


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ABOUT the project

01



The background features a solid light orange color. On the left, there are abstract organic shapes in white and a muted olive green. Thin black lines form a grid-like pattern in the white areas. Two stylized green pomegranates with small stems and a cross symbol are positioned on the olive green shape. The text is located on the right side of the image.

What if the app
**identifies the
food wrongly?**

CHATBOT COMPONENT



BOT

Food: Fried Rice

Fried rice is a versatile dish that often contains a mix of carbohydrates, fats, and protein. However, it can be high in sodium and may contain ...

Our app identifies the wrong food



USER

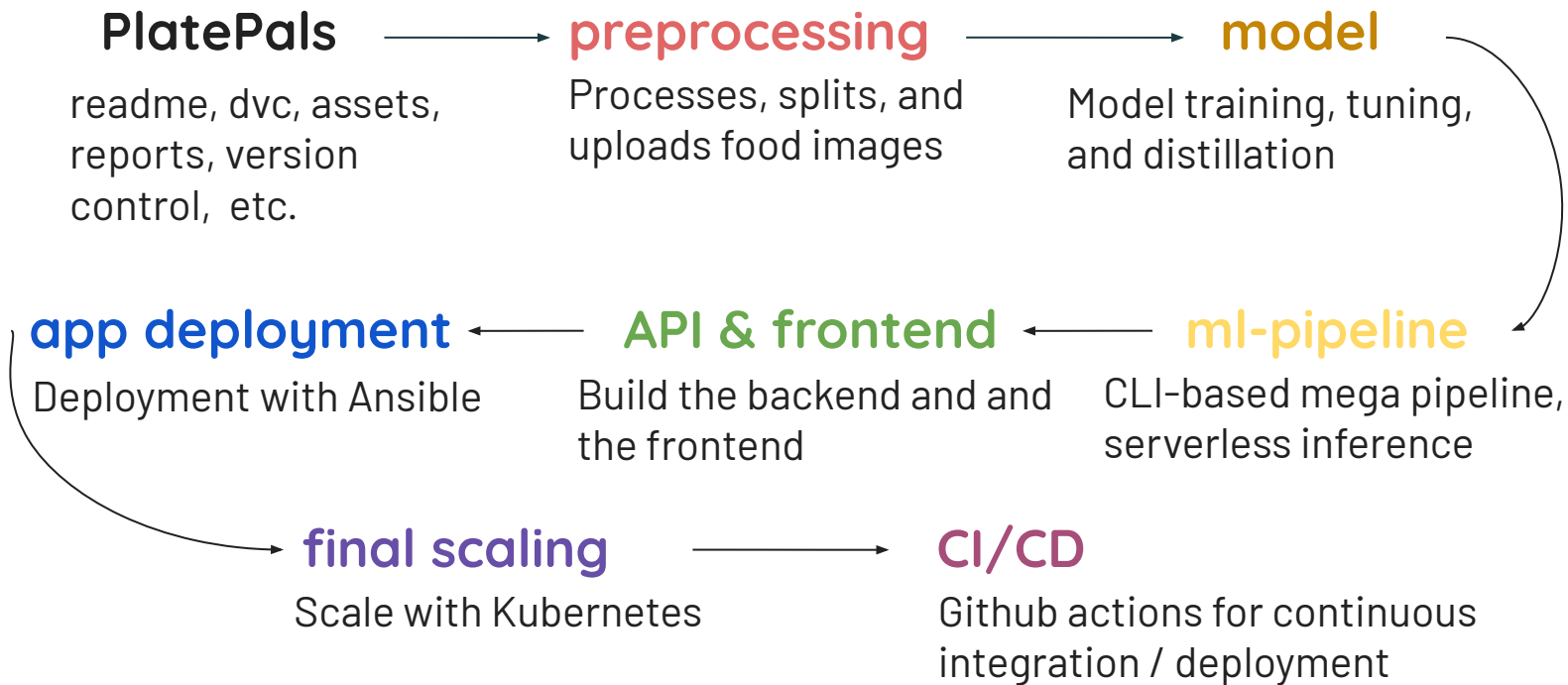
I'm eating ramen, not fried rice.

BOT

I'm sorry, in that case, Ramen is a delicious comfort food but it's often high in sodium and carbohydrates, with minimal essential nutrients. If you're aiming for a balanced diet, consider ...

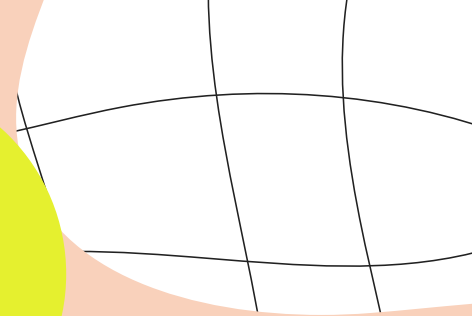
User can correct the chatbot to get the correct dietary recommendations

PROJECT ORGANIZATION





WHY PlatePals?



HEALTH

Depression risk spikes for those who eat these unhealthy foods, study finds: 'Not a coincidence'

'Ultraprocessed' foods, especially artificial sweeteners, linked to higher depression rates in women

By [Melissa Rudy](#) · [Fox News](#)

Poor diet biggest risk factor for early deaths worldwide



By [Catharine Paddock, Ph.D.](#) on April 5, 2019 — [Fact checked](#) by Gianna D'Emilio

You Can't Exercise Your Way Out of an Unhealthy Diet



By [Victoria Stokes](#) on July 15, 2022 — [Fact](#)

Poor diet a factor in one-fifth of global deaths in 2017 - study

Global survey says diseases such as cancer and diabetes behind almost 75% of deaths last year

Unhealthy Diet Is Leading Risk Factor for Death Globally, Study Finds

Research calls for greater global coordination to improve

By [Gaby Galvin](#) | April 3, 2019 |

Poor Diet Associated With 1 In 5 Deaths Globally, More Than Tobacco, High Blood Pressure, Lancet Study Shows

Apr 04, 2019

An illustration on the left side of the slide shows a brown hand holding a glass filled with a light-colored beverage, ice cubes, and two lemon wedges. Dark green leaves are floating around the glass. The background is a solid light orange color with various abstract shapes: a white leafy branch in the top left, a large green shape in the top right, and a white grid pattern in the bottom right.

03

USER

case scenario

John: Type 2 Diabetes



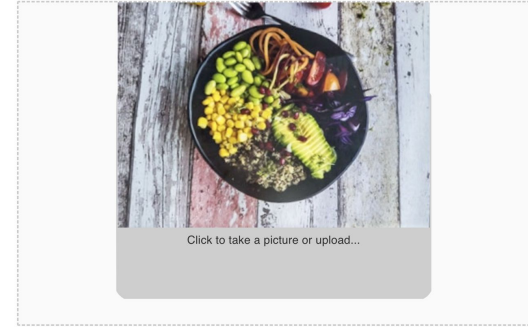
John



☰ 🍷 PlatePals AI Assistant App Version: 1.3 🏠 Home

Image Classification

Prediction: Salad

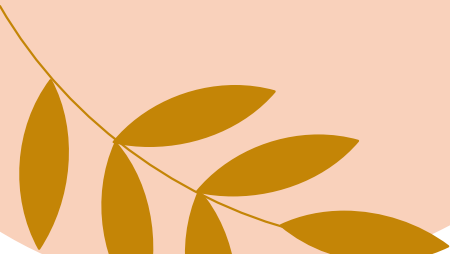


BOT: "This dish can generally be considered a healthy choice for individuals with type 2 diabetes. Opt for whole corn kernels rather than processed or sweetened corn products to avoid excess added sugars..."



CHALLENGES

04



CHALLENGES

01

ENSURING ACCURATE FOOD IDENTIFICATION

Through meticulous data preprocessing and model development through transfer learning and model fine-tuning.

02

INTEGRATING A CHATBOT WITH REACT

Challenging to leverage React to build a Chatbot with OpenAI (API calls in React, passing dictionary of conversation parameters, async)

03

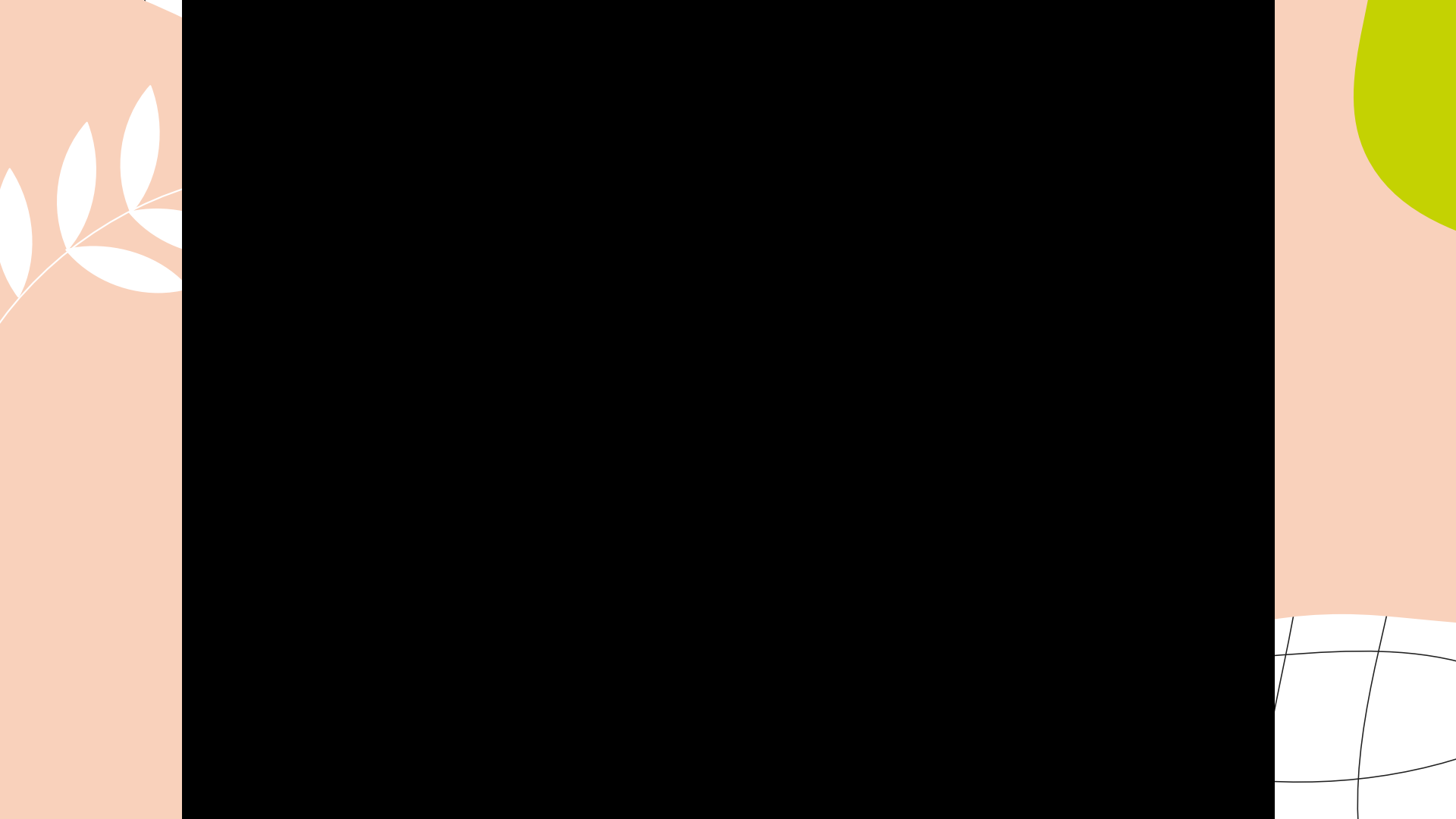
LEVERAGING A NEW FRONTEND TOOL IN REACT

Difficulties understanding the structure, organization, and process of building a frontend using React for the first time

A stylized illustration on the left side of the slide. It features a brown hand holding a glass filled with a light-colored liquid, ice cubes, and two lemon wedges. Behind the glass are two dark green leaves. To the left of the hand is a white leafy branch. The background is a solid light orange color with abstract white and green shapes, including a large green leaf in the top right and a white grid pattern in the bottom right.

05

QUICK demo





**THANKS FOR
LISTENING!**