

FLUTTER APP PRESCHOOL TUTOR

Presented By:

Gaurang Mapuskar -35

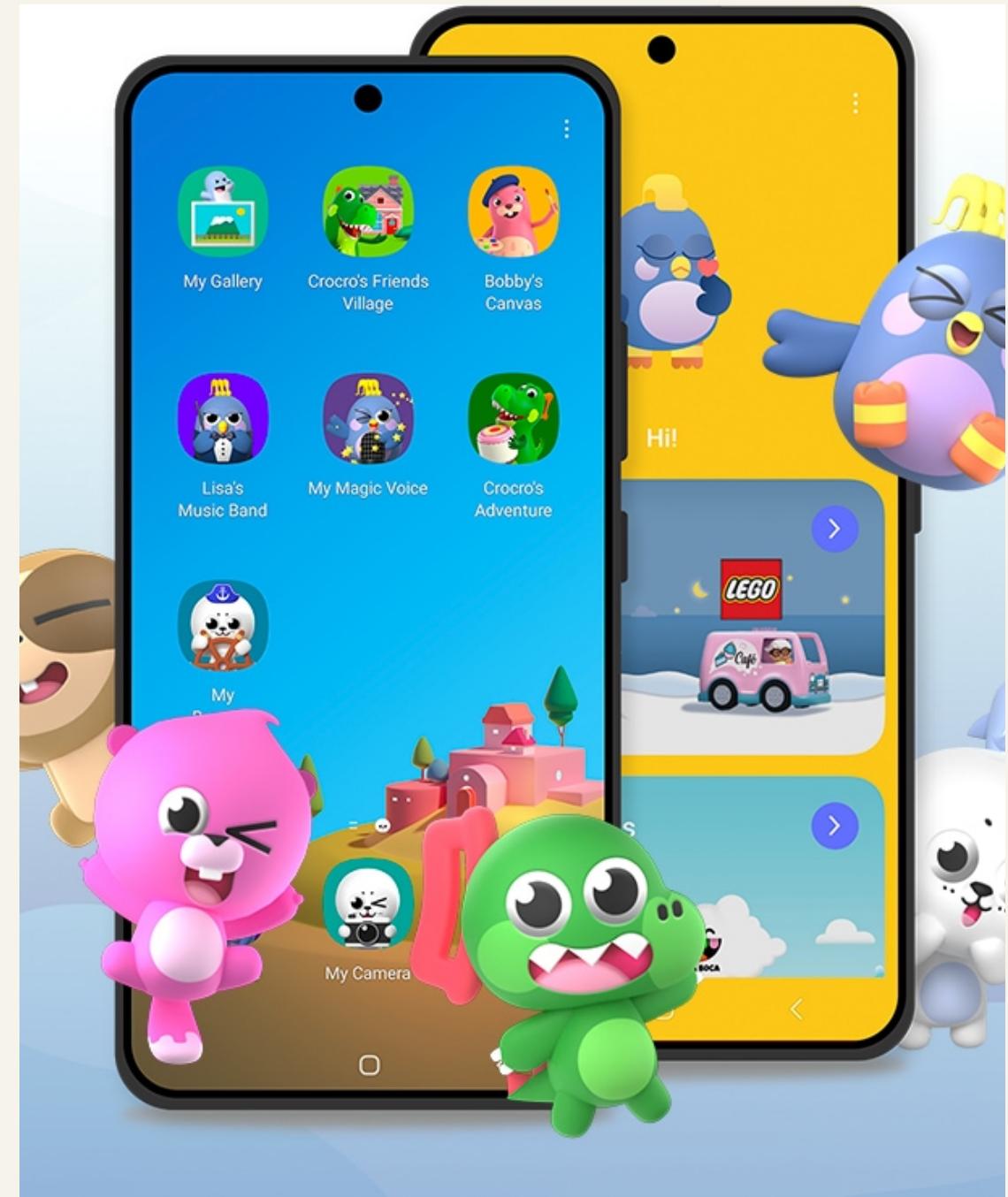
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Introduction

Vibrant and educational platform designed to spark creativity and learning in young minds!

This app is a delightful gateway for children aged 3-8 into the world of interactive games, engaging activities, and playful learning experiences. With a colorful and intuitive interface, the Kids Starter App offers a safe and exciting space where children can explore, discover, and grow.



Problem Statement

In today's digital age, children are exposed to various screens and devices from a very young age. However, the challenge lies in providing them with age-appropriate and educational content. Many existing apps for kids lack a balance between entertainment and learning, often leaning too much towards one aspect. Our goal is to bridge this gap by creating an app that offers a diverse range of activities while encouraging cognitive development.

Objective of the Project

The primary objective of our project is to create an engaging and safe digital environment for children. We aim to:

- Foster creativity and imagination through interactive games and activities.
- Promote early learning in subjects such as math, language, and problem-solving.
- Provide a platform where kids can explore, play, and learn at their own pace.
- Ensure parents' peace of mind with age-appropriate content and parental controls.

FUNCTIONALITIES

Interactive Learning Games

Engaging games like features that teach basic math, colors, shapes and General knowledge

Creative Activities

Drawing, coloring tools to spark creativity.

Kid-Friendly Interface

Simple and intuitive design for easy navigation.

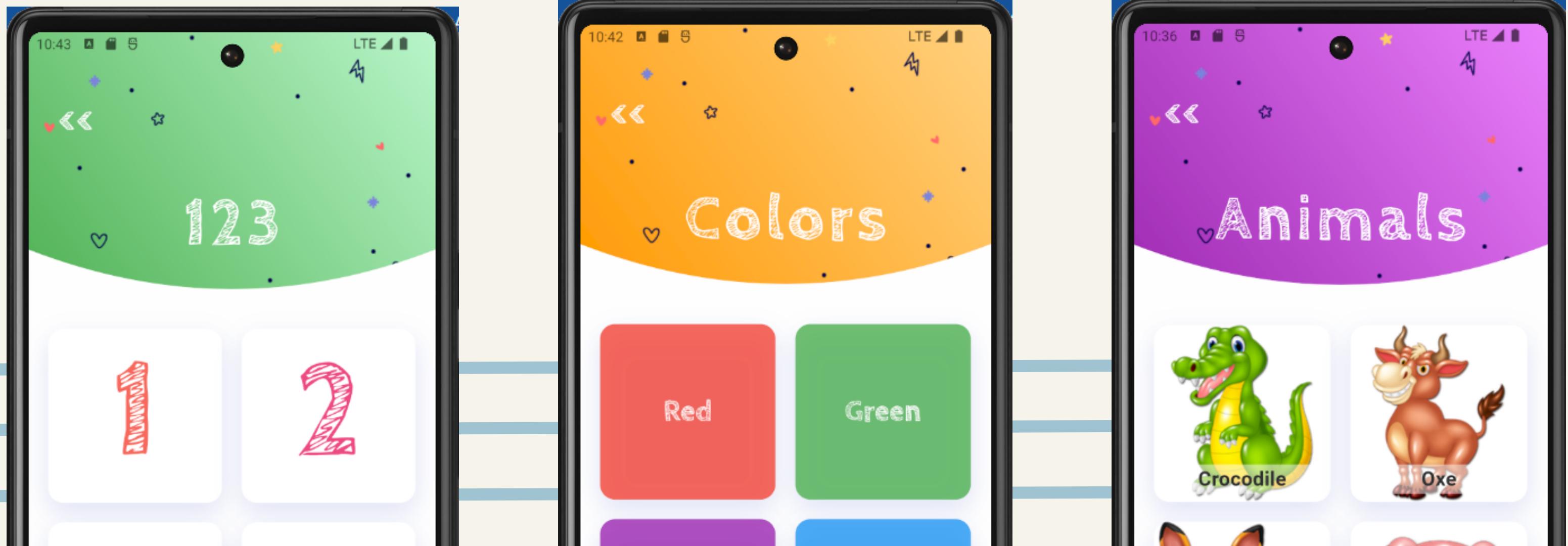
Audio Visual Learning

Engaging Content with audio visual media for better understanding

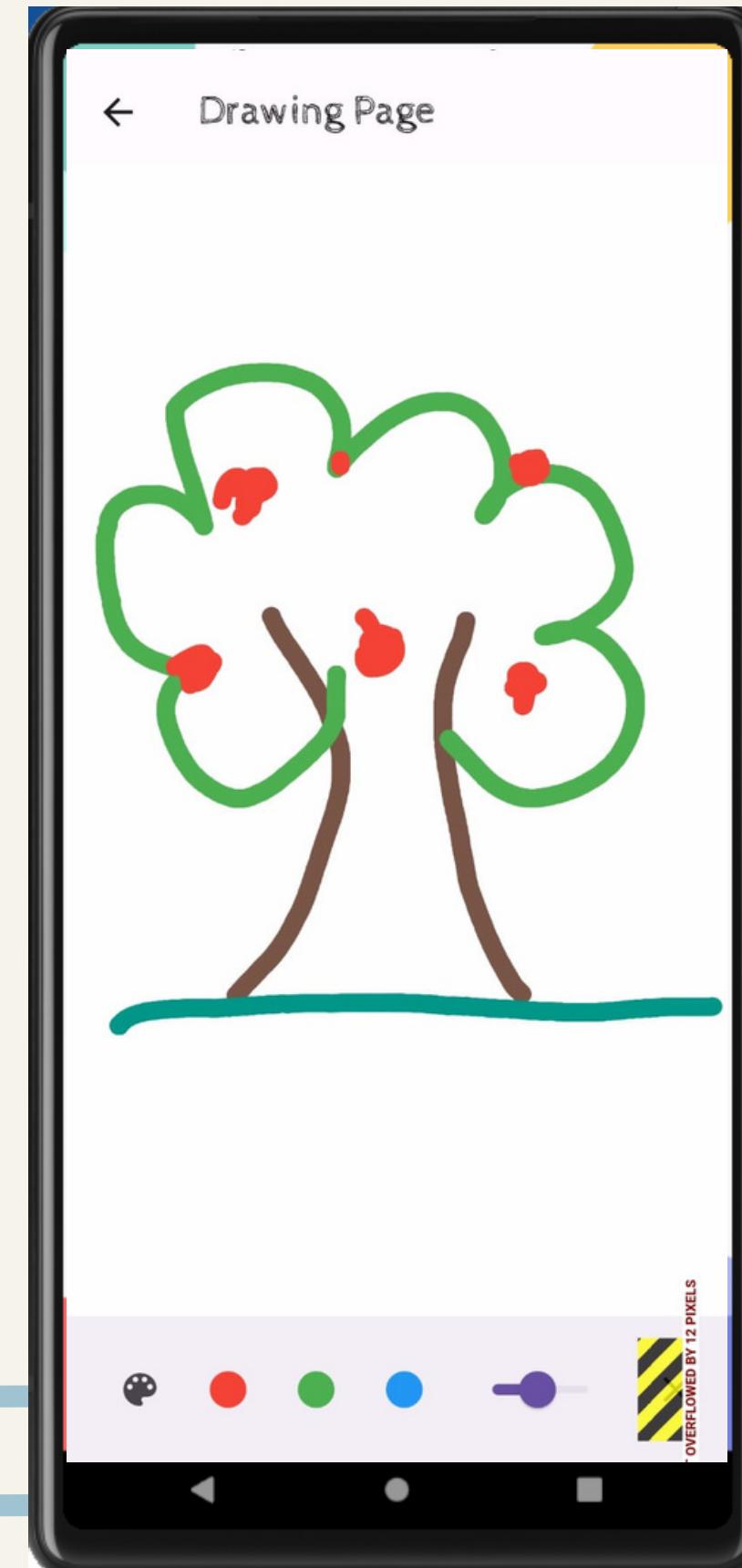
IMPLEMENTATION...



Immersive Audio Visual Learning Experience



Explore Your Creativity with
coloring stencil

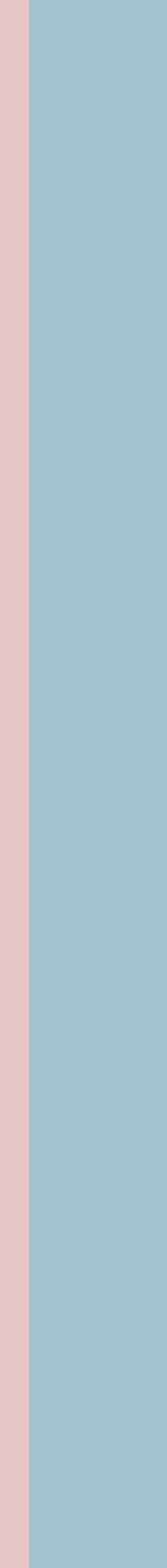


Conclusion

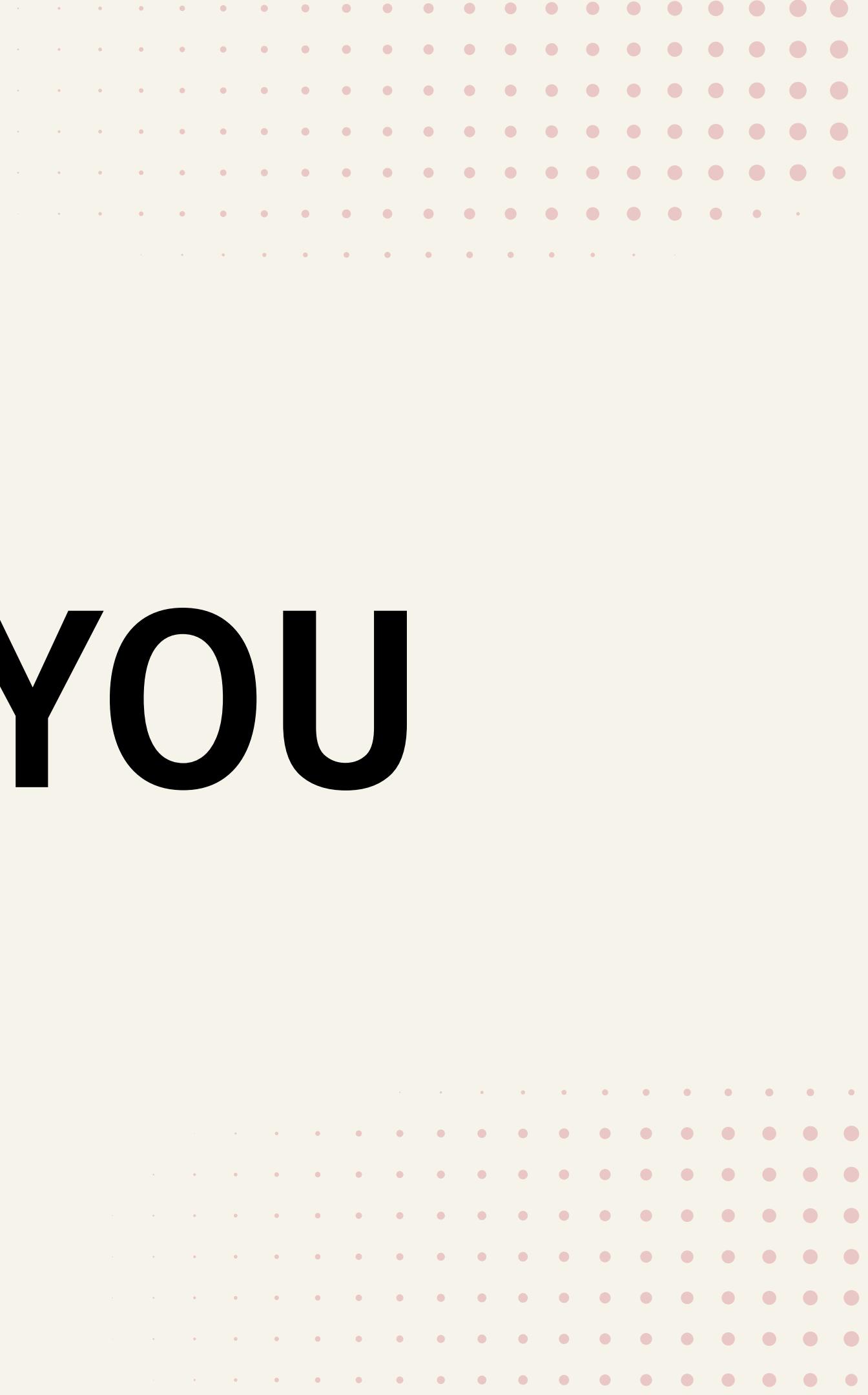
In conclusion, our kids' starter app is a labor of love aimed at nurturing young minds in a digital age. By combining entertainment with education, we hope to make learning a fun and enjoyable experience for children. We are committed to continuous improvement and look forward to expanding our app with new features and activities.

References

- ABCmouse: [Link](#)
- Khan Academy Kids: [Link](#)
- "Educational Apps for Kids" - Research Paper by Child Development Institute: [Link](#)
- "Cognitive Development in Preschool Children" - Study by American Academy of Pediatrics: [Link](#)



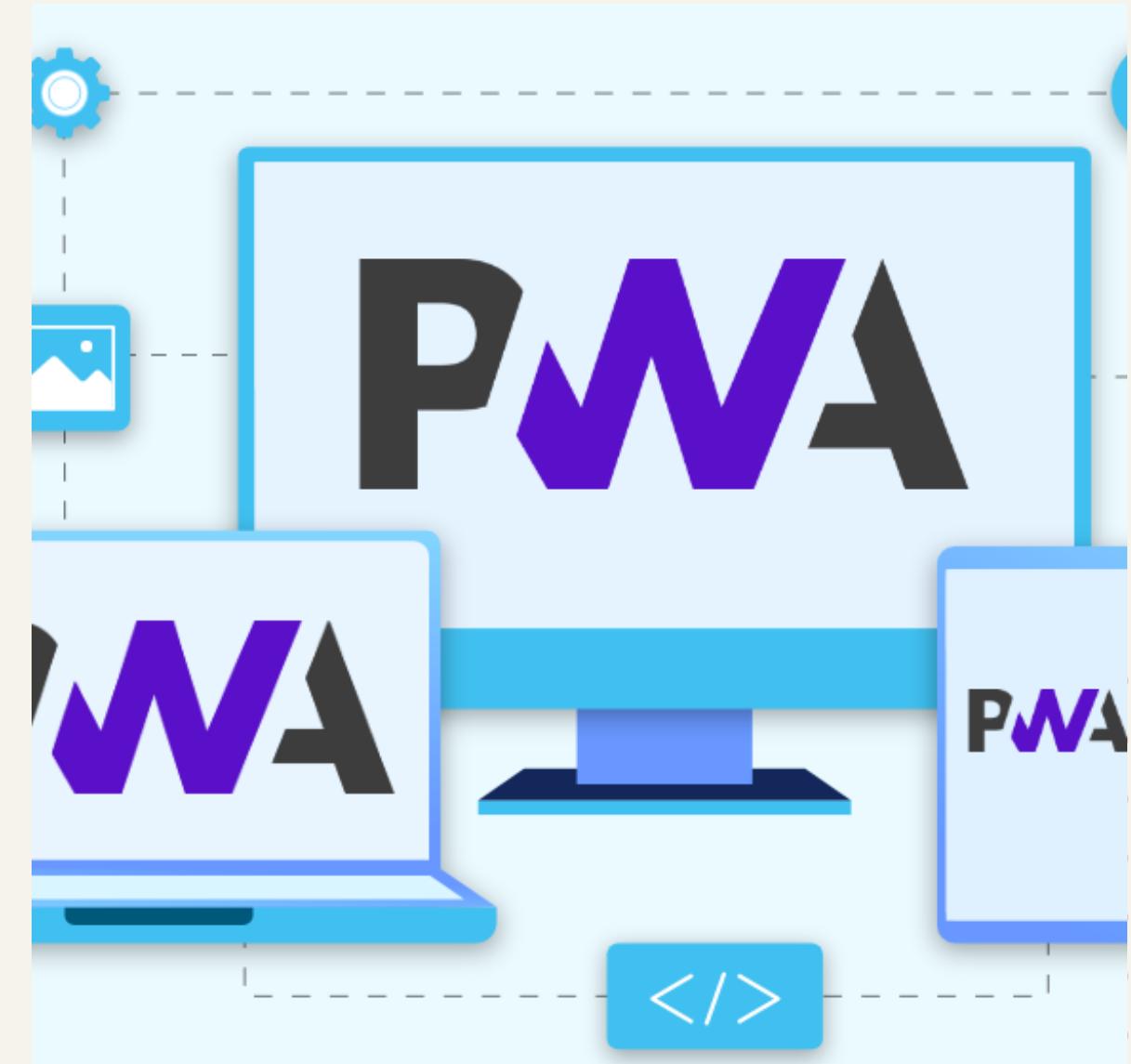
THANK YOU



INTRODUCTION

PWAs enhance the overall performance and usability of ecommerce websites, making them indispensable for businesses looking to provide a modern and convenient shopping experience to their customers.

PWAs offer a seamless user experience by enabling fast loading times, offline access to content, and push notifications—all essential elements for engaging customers in the competitive ecommerce landscape.



OBJECTIVES

- Homescreen Installation

- Offline Functionality

- Push Notifications

- Fetch, Sync Event

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The screenshot shows a web browser window with a PWA application named "MyWatch". The main content area displays a promotional image for the "Galaxy Watch 2" starting at 24999, with a "Buy Now" button. The browser's developer tools are open, specifically the "Sources" tab, which is displaying the "manifest.json" file. The manifest file contains the following JSON code:

```
1 {  
2   "name": "Gaurang App",  
3   "short_name": "GAU",  
4   "start_url": "index.html",  
5   "display": "standalone",  
6   "background_color": "#5900b3",  
7   "theme_color": "black",  
8   "scope": ".",  
9   "description": "This is the PWA",  
10  "icons": [  
11    {  
12      "src": "images/icon-192x192.jpg",  
13      "sizes": "192x192",  
14      "type": "image/jpg"  
15    },  
16    {  
17      "src": "images/icon-512x512.jpg",  
18      "sizes": "512x512",  
19      "type": "image/jpg"  
20    }  
21  ]  
22}
```

The "Sources" tab also shows a sidebar with various developer tool features like Watch, Breakpoints, and Call Stack.

Console tab content:

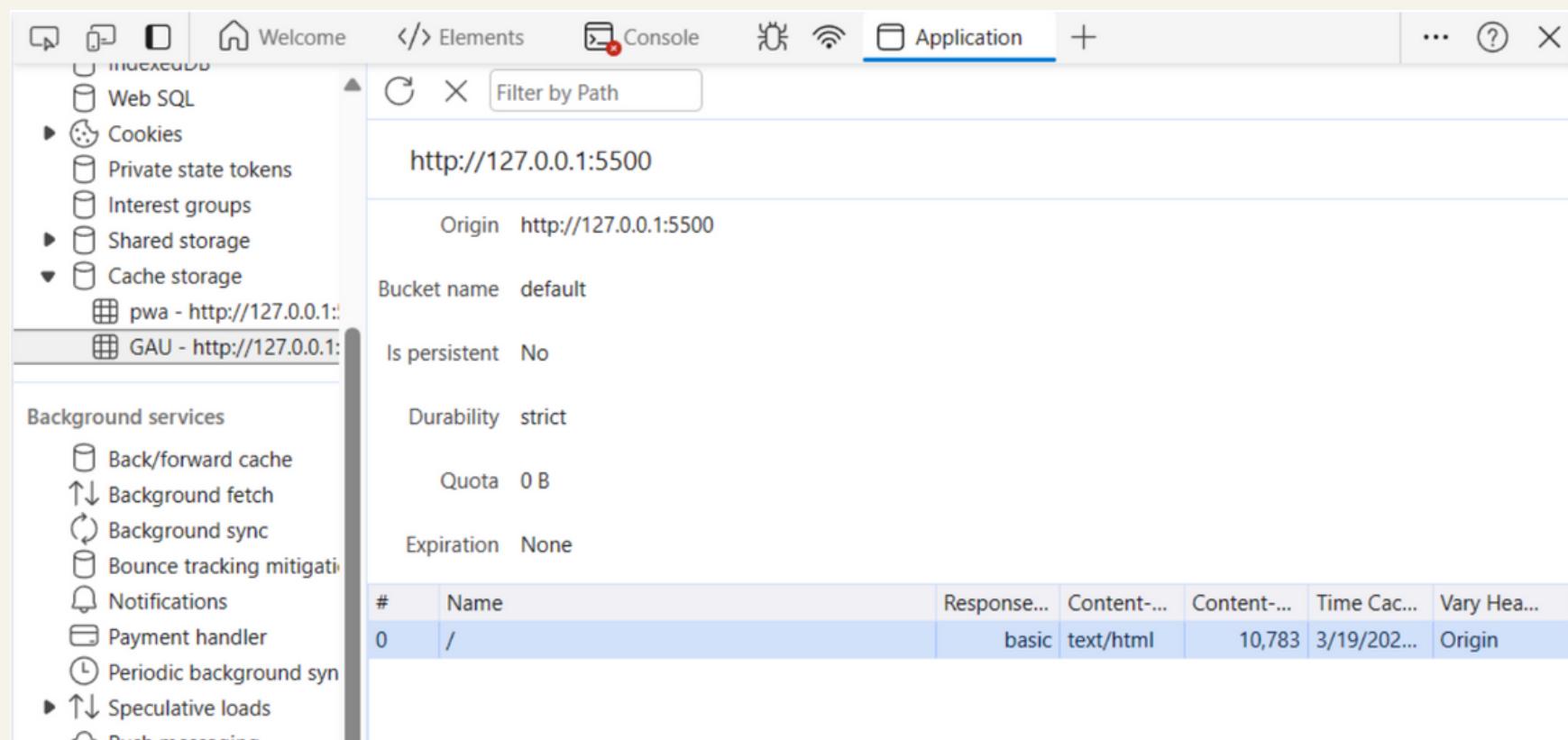
- Highlights from the Chrome 122 update
- Third-party cookie phaseout warnings in Network and Application
- The Network and Application panels now show you warnings next to cookies affected by the third-party cookie restrictions from Tracking Protection.

Network tab content:

- new

Fetch Event

The fetch event in Progressive Web Apps (PWAs) triggers whenever the app makes a network request. It allows developers to intercept these requests, enabling intelligent caching for offline access and faster load times. By utilizing fetch, PWAs can serve cached content while waiting for updated data from the network, ensuring a seamless and responsive user experience.



The screenshot shows the Chrome DevTools Application tab open. On the left, there's a sidebar with various storage types: Web SQL, Cookies, Private state tokens, Interest groups, Shared storage, and Cache storage. Under Cache storage, two entries are listed: 'pwa - http://127.0.0.1:' and 'GAU - http://127.0.0.1:'. The main panel displays configuration settings for the default bucket:

- Bucket name:** default
- Is persistent:** No
- Durability:** strict
- Quota:** 0 B
- Expiration:** None

Below these settings is a table showing a single entry:

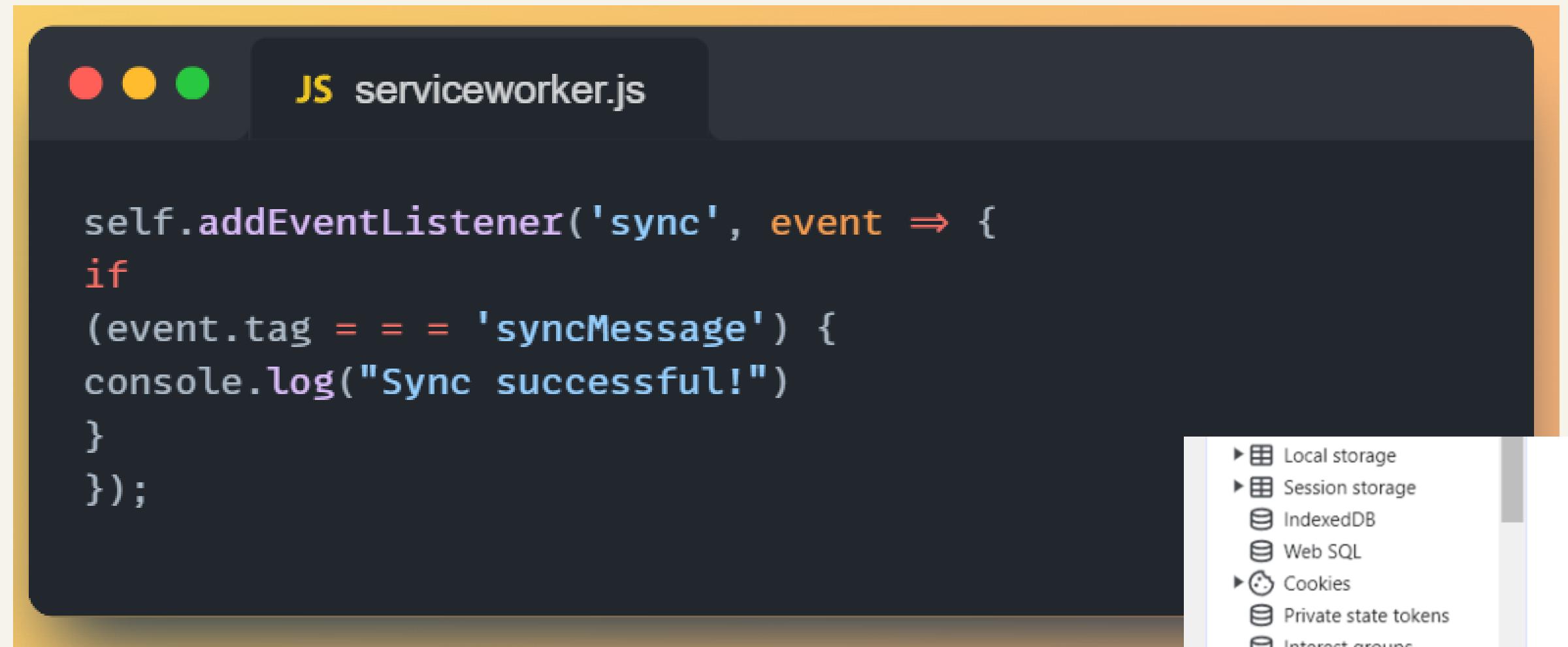
#	Name	Response...	Content-...	Content-...	Time Cac...	Vary He...
0	/	basic	text/html	10,783	3/19/202...	Origin



```

self.addEventListener("fetch", function (event) {
  console.log(event.request.url);
  event.respondWith(
    caches.match(event.request).then(function (response) {
      return response || fetch(event.request);
    })
  );
});
self.addEventListener('install', function(event) {
  Name:Gaurang Mapuskar Class:D15B
  Roll. No:35
  // Perform some task
});
self.addEventListener('activate', function(event) {
  event.waitUntil(
    // Perform cleanup tasks or cache management here
    // For example, deleting outdated caches
    caches.keys().then(function(cacheNames) {
      return Promise.all(
        cacheNames.filter(function(cacheName) {
          // Check if the cache name is outdated and needs to be deleted
          // For example, you might compare cache names with the current cache
          // version
        }).map(function(cacheName) {
          // Delete the outdated cache
          return caches.delete(cacheName);
        })
      );
    })
  );
});

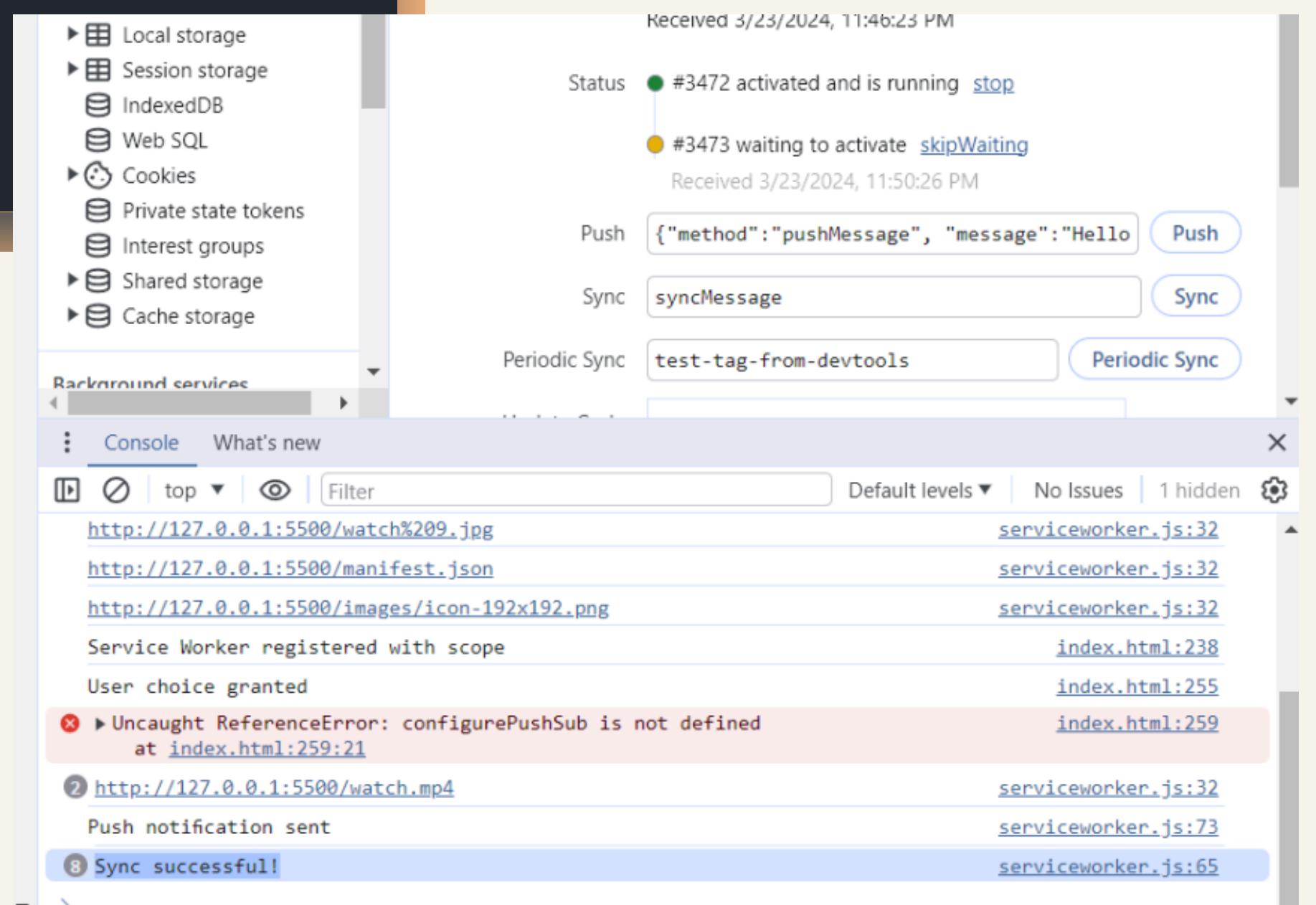
```

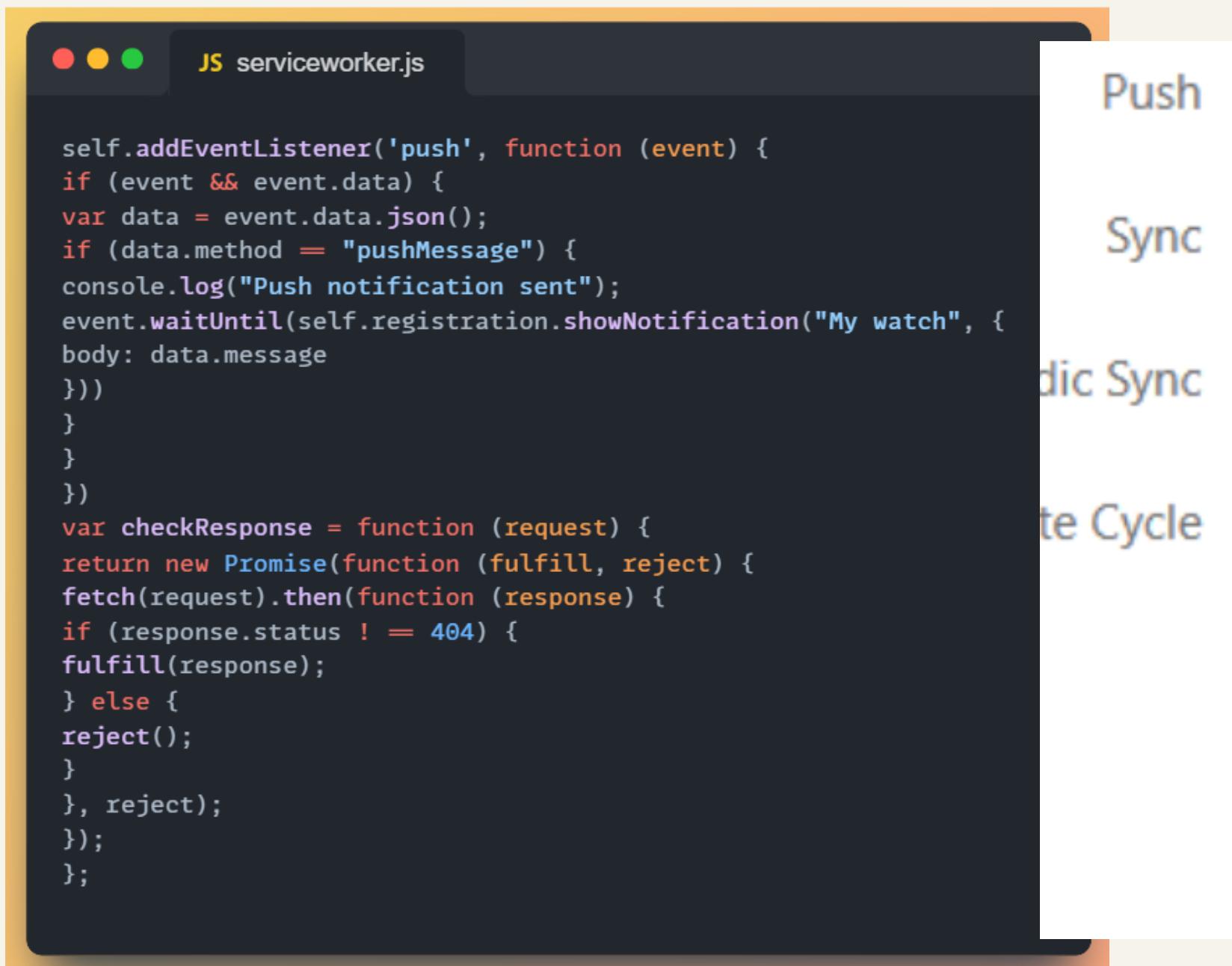


```
self.addEventListener('sync', event => {
  if
  (event.tag === 'syncMessage') {
    console.log("Sync successful!")
  }
});
```

Sync Event

The sync event in Progressive Web Apps (PWAs) enables background synchronization of data when the device reconnects to the internet. This allows PWAs to queue up tasks, such as sending form data or updating content, ensuring a seamless user experience even when offline. The sync event enhances the reliability and usability of PWAs by automatically syncing user actions once the device has a stable internet connection.





The screenshot shows a browser developer tools interface for editing a service worker script named 'serviceworker.js'. The code handles a 'push' event by logging a message to the console and displaying a notification. It also defines a checkResponse function that uses a Promise to handle a fetch request.

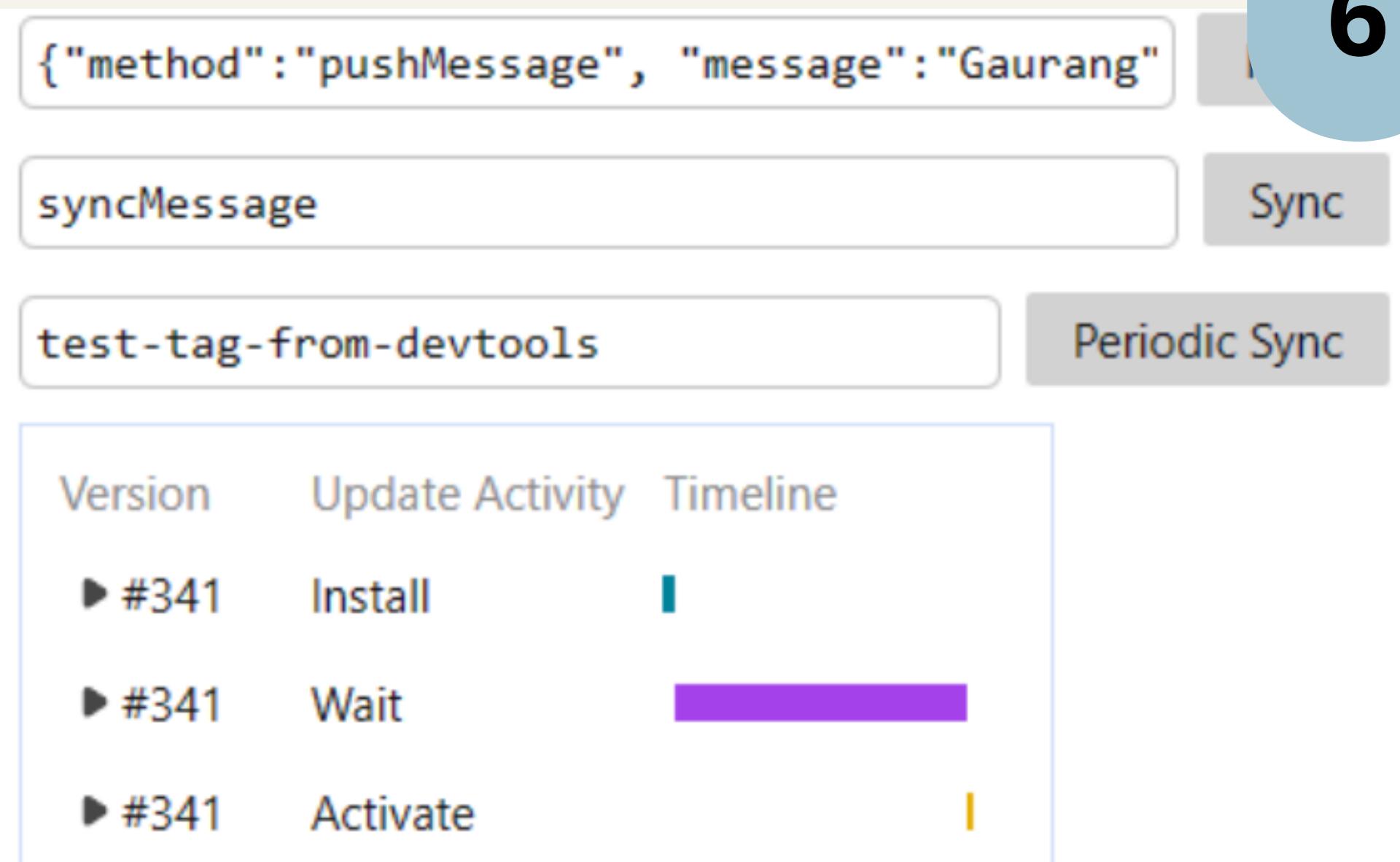
```

JS serviceworker.js

self.addEventListener('push', function (event) {
  if (event && event.data) {
    var data = event.data.json();
    if (data.method == "pushMessage") {
      console.log("Push notification sent");
      event.waitUntil(self.registration.showNotification("My watch", {
        body: data.message
      }));
    }
  }
}

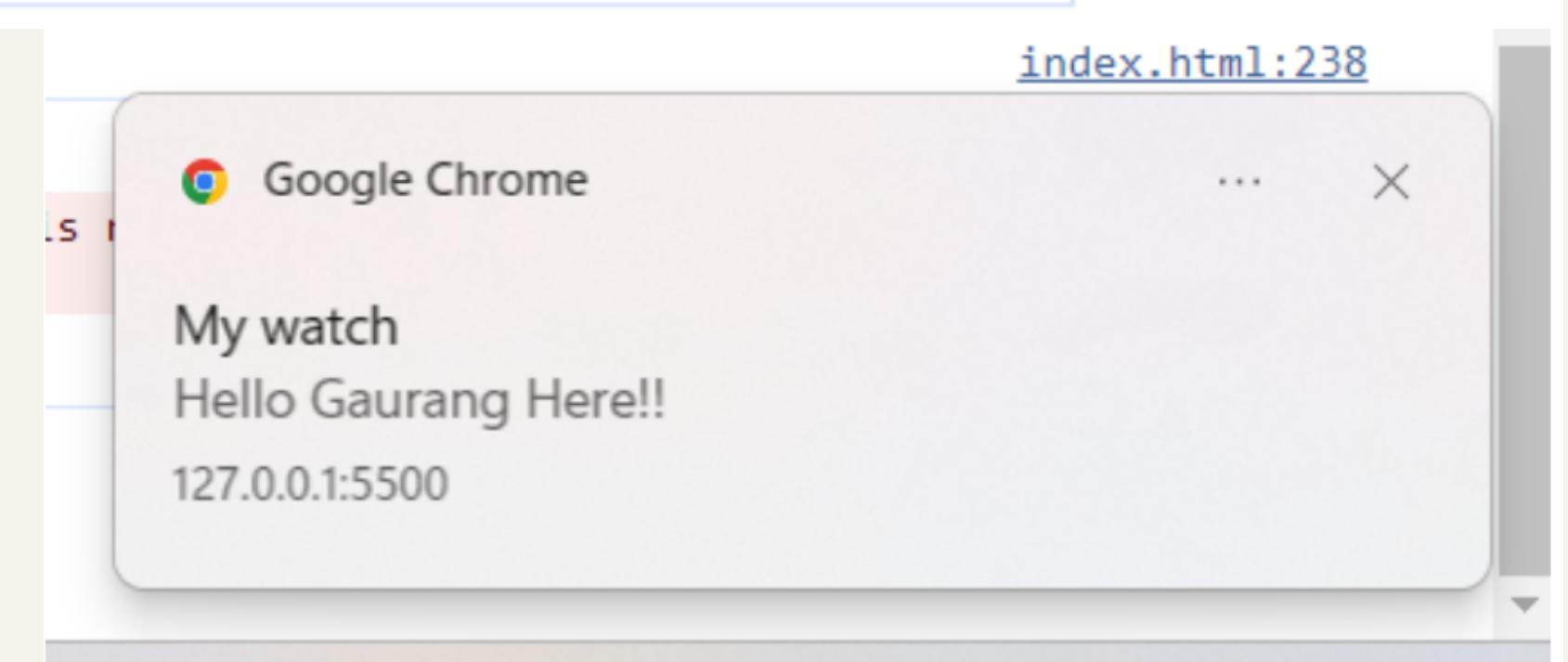
var checkResponse = function (request) {
  return new Promise(function (fulfill, reject) {
    fetch(request).then(function (response) {
      if (response.status != 404) {
        fulfill(response);
      } else {
        reject();
      }
    }, reject);
  });
};

```



The screenshot shows the Chrome DevTools Application tab. It displays a 'Push' message with the payload {"method": "pushMessage", "message": "Gaurang"} and a 'Sync' message labeled 'syncMessage'. A button labeled 'Sync' is visible. Below these, a 'test-tag-from-devtools' entry is listed under 'Periodic Sync'.

Version	Update Activity	Timeline
▶ #341	Install	
▶ #341	Wait	
▶ #341	Activate	



Push Event

Push event enables real-time notifications to be sent to users' devices. When triggered by a server-sent push notification, the PWA can display timely updates, promotions, or important information to engage users, even when the app is not actively open.

PWA Score

The screenshot shows a web browser window with the Lighthouse extension open. The main content area displays a promotional image for the Galaxy Watch 2, featuring a hand wearing a smartwatch with a digital watch face showing 20:09 and 25. Text overlay on the image reads "Galaxy Watch 2" and "Starting 24999". A green "Buy Now" button is at the bottom.

The Lighthouse interface shows the following scores:

- Performance: 99
- Accessibility: 83
- Best Practices: 96
- SEO: 80
- PWA: 100 (green circle with checkmark)

The browser's console panel shows a single error message: "Ignoring Event: localhost" from "script.js:1".

THANK YOU

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