Refrea, Mar John S.
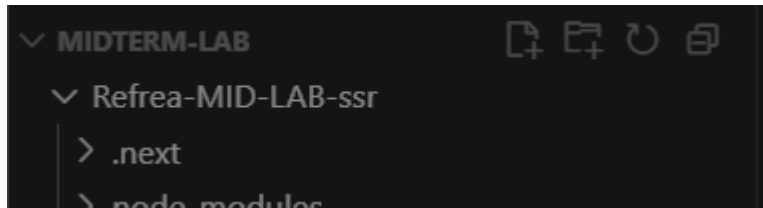
4IT – B
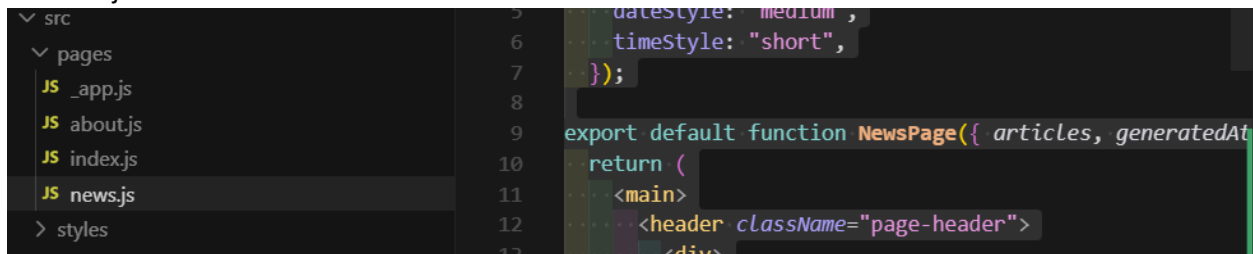
A. Create a Next.js application that demonstrates Server-Side Rendering.
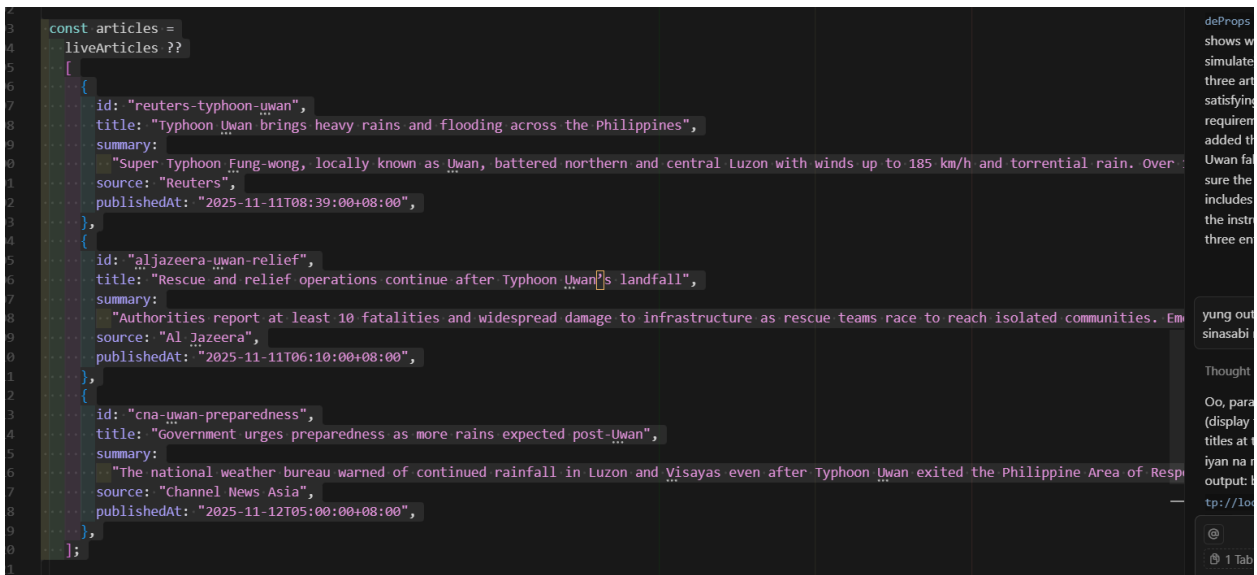
STEPS:

1.

2. news.js

3.

4.

Generated at Nov 12, 2025, 9:35 AM (server time)

Latest Headlines

This page uses `getServerSideProps` so data refreshes on every request. Refresh the page or inspect the HTML source to see the timestamp update.

Typhoon Uwan brings heavy rains and flooding across the Philippines

Published Nov 11, 2025, 8:39 AM

Super Typhoon Fung-wong, locally known as Uwan, battered northern and central Luzon with winds up to 185 km/h and torrential rain. Over 1.4 million residents were displaced due to floods and landslides, with power outages reported in multiple provinces.

Source: Reuters

Rescue and relief operations continue after Typhoon Uwan's landfall

Published Nov 11, 2025, 6:10 AM

Authorities report at least 10 fatalities and widespread damage to infrastructure as rescue teams race to reach isolated communities. Emergency shelters have been opened for displaced families, while cleanup and recovery are underway in affected towns.

Source: Al Jazeera

Rescue and relief operations continue after Typhoon Uwan's landfall

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Source: Al Jazeera

Government urges preparedness as more rains expected post-Uwan

Published Nov 12, 2025, 5:00 AM

The national weather bureau warned of continued rainfall in Luzon and Visayas even after Typhoon Uwan exited the Philippine Area of Responsibility. Local authorities are advising residents to remain alert for possible flash floods and landslides.

Source: Channel News Asia

5.

Line wrap ☑

1 <!DOCTYPE html><html><head><meta charSet="utf-8" data-next-head=""/><meta name="viewport" content="width=device-width" data-next-head=""/><link rel="preload" href="/_next/static/chunks/src_styles_globals_5bb75e7e.css" as="style"/><style data-next-hide-fouc="true">body{display:none}</style><noscript data-next-hide-fouc="true"><style>body{display:block}</style></noscript><link rel="stylesheet" href="/_next/static/chunks/src_styles_globals_5bb75e7e.css" data-n-g=""/><noscript data-n-css=""></noscript><script src="/_next/static/chunks/node_modules_next_dist_compiled_c629999b.__.js" defer=""></script><script src="/_next/static/chunks/node_modules_next_dist_shared_lib_82dc2e9d.__.js" defer=""></script><script src="/_next/static/chunks/node_modules_next_dist_client_d0aa886c.__.js" defer=""></script><script src="/_next/static/chunks/node_modules_next_dist_6024eba3.__.js" defer=""></script><script src="/_next/static/chunks/node_modules_react-dom_4411d9bd.__.js" defer=""></script><script src="/_next/static/chunks/node_modules_f1be3ba2.__.js" defer=""></script><script src="/_next/static/chunks/%5Broot-of-the-server%5D_75dd6ea7.__.js" defer=""></script><script src="/_next/static/chunks/src_pages__app_2da965e7.__.js" defer=""></script><script src="/_next/static/chunks/turbopack-src_pages__app_bfcd8a25.__.js" defer=""></script><script src="/_next/static/chunks/node_modules_next_dist_shared_lib_4025f6b7.__.js" defer=""></script><script src="/_next/static/chunks/node_modules_next_dist_client_3ede7da4.__.js" defer=""></script><script src="/_next/static/chunks/node_modules_next_link_207af988.js" defer=""></script><script src="/_next/static/chunks/%5Broot-of-the-server%5D_706d0d4f.__.js" defer=""></script><script src="/_next/static/chunks/src_pages_news_2da965e7.__.js" defer=""></script><script src="/_next/static/chunks/turbopack-src_pages_news_273a3c84.__.js" defer=""></script><script src="/_next/static/development/_ssgManifest.js" defer=""></script><script src="/_next/static/development/_buildManifest.js" defer=""></script><noscript id="__next_css__DO_NOT_USE__"></noscript></head><body><div id="__next"><main><header class="page-header"><div><p class="breadcrumbs">HomeNews (SSR)</p><h1>Latest Headlines</h1><p class="muted">This page uses <code>getServerSideProps</code> so data refreshes on every request. Refresh the page or inspect the HTML source to see the timestamp update.</p></div>Generated at <!-- -->Nov 12, 2025, 9:38 AM<!-- --> (server time)</header><ul class="card-list"><li class="card"><h2>Typhoon Uwan brings heavy rains and flooding across the Philippines</h2>Published <!-- -->Nov 11, 2025, 8:39 AM<p>Super Typhoon Fung-wong, locally known as Uwan, battered northern and central Luzon with winds up to 185 km/h and torrential rain. Over 1.4 million residents were displaced due to floods and landslides, with power outages reported in multiple provinces.</p><p class="muted">Source: <!-- -->Reuters</p>
<li class="card"><h2>Rescue and relief operations continue after Typhoon Uwan's landfall</h2>Published <!-- -->Nov 11, 2025, 6:10 AM<p>Authorities report at least 10 fatalities and widespread damage to infrastructure as rescue teams race to reach isolated communities. Emergency shelters have been opened for displaced families, while cleanup and recovery are underway in affected towns.</p><p class="muted">Source: <!-- -->Al Jazeera</p>
<li class="card"><h2>Government urges preparedness as more rains expected post-Uwan</h2>Published <!-- -->Nov 12, 2025, 5:00 AM<p>The national weather bureau warned of continued rainfall in Luzon and Visayas even after Typhoon Uwan exited the Philippine Area of Responsibility. Local authorities are advising residents to remain alert for possible flash floods and landslides.</p><p class="muted">Source: <!-- -->Channel News Asia</p>
</main></div><script id="__NEXT_DATA__" type="application/json">{"props":{"pageProps":{"articles":[{"id":"reuters-typhoon-uwan","title":"Typhoon Uwan brings heavy rains and flooding across the Philippines","summary":"Super Typhoon Fung-wong, locally known as Uwan, battered northern and central Luzon with winds up to 185 km/h and torrential rain. Over 1.4 million residents were displaced due to floods and landslides, with power outages reported in multiple provinces.","source":"Reuters","publishedAt":"2025-11-11T08:39:00+08:00"},{"id":"aljazeera-uwan-relief","title":"Rescue and relief operations continue after Typhoon Uwan's landfall","summary":"Authorities report at least 10 fatalities and widespread damage to infrastructure as rescue teams race to reach isolated communities. Emergency shelters have been opened for displaced families, while cleanup and recovery are underway in affected towns.","source":"Al Jazeera","publishedAt":"2025-11-11T06:10:00+08:00"},{"id":"cna-uwan-preparedness","title":"Government urges preparedness as more rains expected post-Uwan","summary":"The national weather bureau warned of continued rainfall in Luzon and Visayas even after Typhoon Uwan exited the Philippine Area of Responsibility. Local authorities are advising residents to remain alert for possible flash floods and landslides.","source":"Channel News Asia","publishedAt":"2025-11-12T05:00:00+08:00"}],"generatedAt":"2025-11-12T01:38:27.502Z"},"__N_SSP":true},"page":"/news","query":{},"buildId":"development","isFallback":false,"gssp":true,"scriptLoader":[]}</script></body></html>

6.

```
 81          source: article.source?.name ?? "Unknown source",
 82          publishedAt: article.publishedAt ?? new Date().toISOString(),
 83        }));
 84      } catch (error) {
 85        console.error("Failed to load articles from News API:", error);
 86        return null;
 87      }
 88    }
 89
 90    export async function getServerSideProps() {
 91      const liveArticles = await fetchFromNewsApi();
 92
 93      const articles =
 94        liveArticles ??
 95        [
 96          {
 97            id: "reuters-typhoon-uwan",
 98            title: "Typhoon Uwan brings heavy rains and flooding across the Philippines",
 99            summary:
100              "Super Typhoon Fung-wong, locally known as Uwan, battered northern and central Luzon with winds up to 185 km/h and torrentia
101            source: "Reuters",
102            publishedAt: "2025-11-11T08:39:00+08:00",
103          },
104          {
105            id: "aljazeera-uwan-relief",
106            title: "Rescue and relief operations continue after Typhoon Uwan's landfall",
107            summary:
```

B. Create a static page demonstrating Static Site Generation

STEPS:

1.

```
                         3      const formatDate = (isoTimestamp) =>
> public                  4        new Date(isoTimestamp).toLocaleString("en-US", {
∨ src                     5          dateStyle: "medium",
  ∨ pages                 6          timeStyle: "short",
    JS _app.js            7        });
                          8
    JS about.js           9      export default function AboutPage({ description, team, builtAt }) {
    JS index.js          10        return (
    JS news.js           11          <main>
  > styles               12            <header className="page-header">
  ◇ .gitignore           13              <div>
  JS eslint.config.mjs   14                <p className="breadcrumbs">
                          15                  <Link href="/">Home</Link>
```

2.

```
49        ),
50      }
51
52      export async function getStaticProps() {
53        // In a real project you'd fetch this data from a CMS or filesystem.
54        const description =
55          "A midterm laboratory exercise showing how Next.js can render content on the server per
56
57        const team = [
58          {
59            name: "Refrea Mendoza",
60            role: "Project Lead",
61            focus: "Coordinates milestones, documentation, and stakeholder demos.",
62          },
63          {
64            name: "Jordan Kim",
65            role: "Full-stack Developer",
66            focus: "Implements data fetching logic and optimizes server responses.",
67          },
68          {
69            name: "Priya Singh",
70            role: "UX Specialist",
71            focus: "Ensures the UI communicates SSR vs. SSG behavior clearly.",
72          },
```

About the Project

This page is prerendered at build time using `getStaticProps`. Update the content and rebuild to see how the HTML changes only after a new build.

What is this lab?

A midterm laboratory exercise showing how Next.js can render content on the server per-request (SSR) and at build-time (SSG).

Team Roles

Project Lead
Refrea Mendoza
Coordinates milestones, documentation, and stakeholder demos.

Full-stack Developer
Jordan Kim
Implements data fetching logic and optimizes server responses.

UX Specialist
Priya Singh
Ensures the UI communicates SSR vs. SSG behavior clearly.

Midterm Lab: SSR & SSG

Demonstration project for Refrea showing the difference between server-side rendering and static site generation in Next.js.

Explore the Examples

News (SSR Demo)

Click to inspect the rendering strategy and review the code in `getServerSideProps` or `getStaticProps`.

View News

About (SSG Demo)

Click to inspect the rendering strategy and review the code in `getServerSideProps` or `getStaticProps`.

View About

What is this lab?

A midterm laboratory exercise showing how Next.js can render content on the server per-request (SSR) and at build-time (SSG). The rebuilt version now highlights our emergency response focus for the semester.

Team Roles

Project Lead
Refrea Mendoza

Coordinates milestones, documentation, and stakeholder demos.

Full-stack Developer
Jordan Kim

Implements data fetching logic and optimizes server responses.

UX Specialist
Priya Singh

Ensures the UI communicates SSR vs. SSG behavior clearly.

Disaster Response Analyst
Luis Ortega

Provides typhoon preparedness insights and validates weather-related content.