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Kelas:2IA22

1. Jelaskan instalasi Polymer versi 2.0 dengan menggunakan bower (Poin : 30)

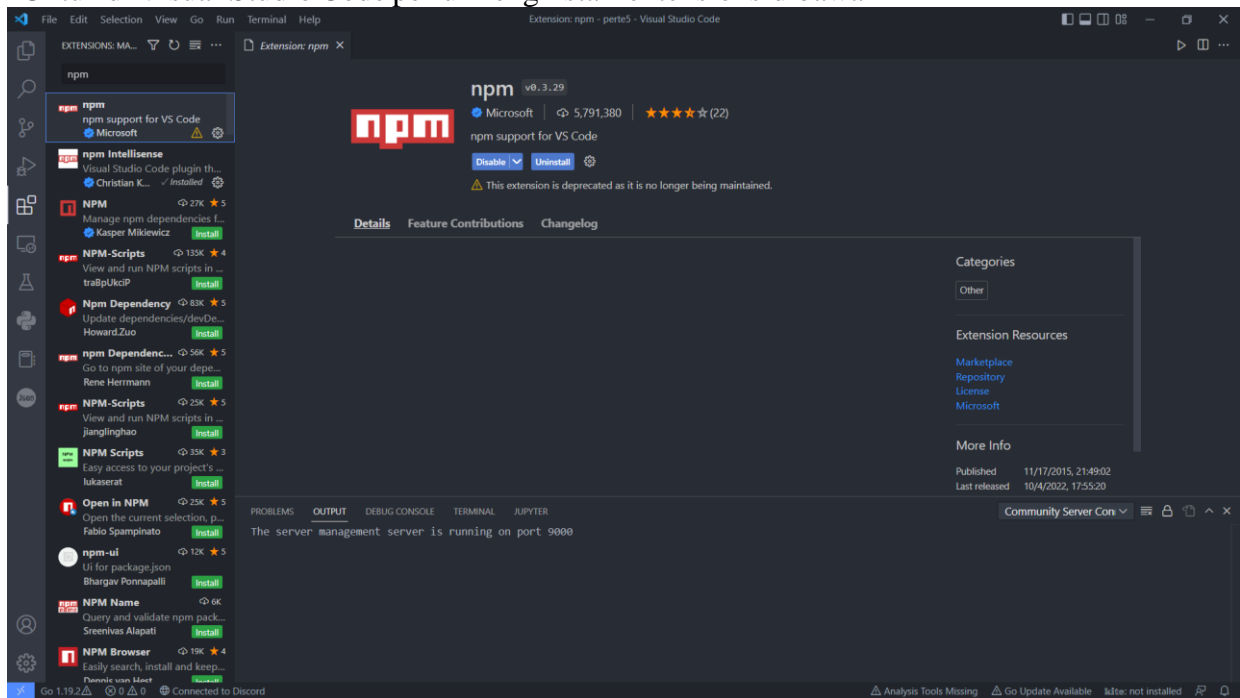
Jawab:

Sebelum menginstall Polymer dengan menggunakan bower dibutuhkan NodeJS dan git yang dihubungkan untuk proses installasi. Jadi disarankan untuk menginstallasi NodeJs dan git terlebih dahulu.

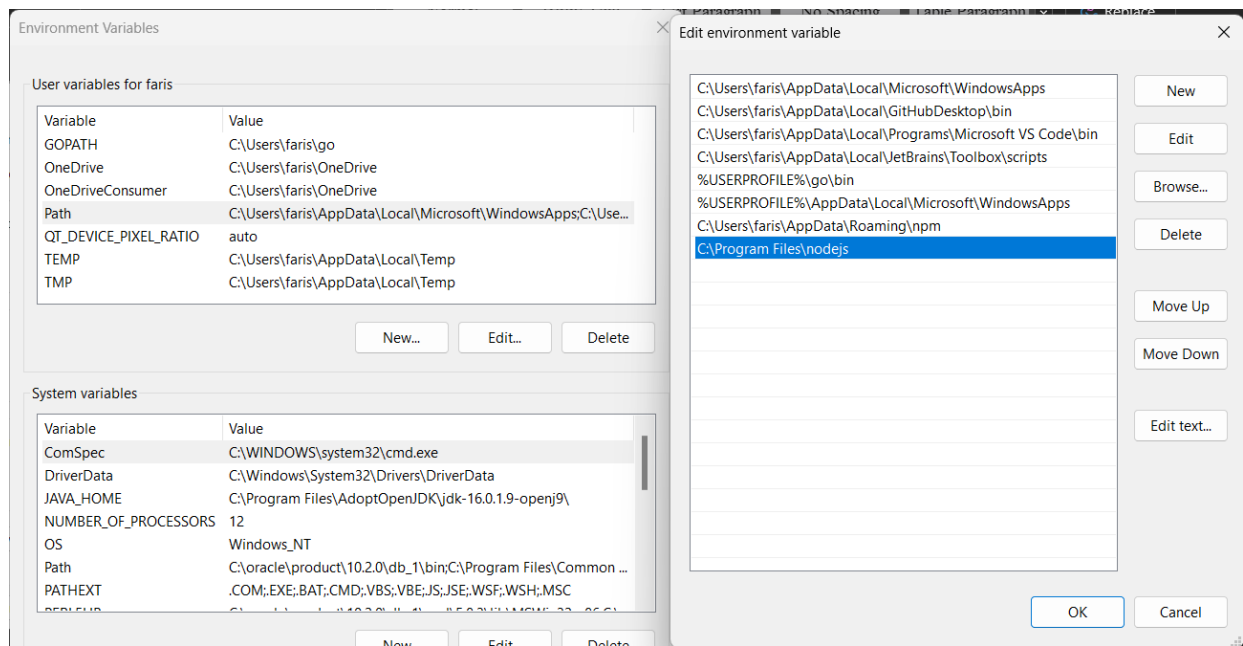
Download NodeJS disini <https://nodejs.org/en/download/> (Harap Sesuaikan dengan OS)

Download Git disini <https://git-scm.com/download/> (Harap Sesuaikan dengan OS)

Untuk di Visual Studio Code perlu menginstall extensions dibawah ini



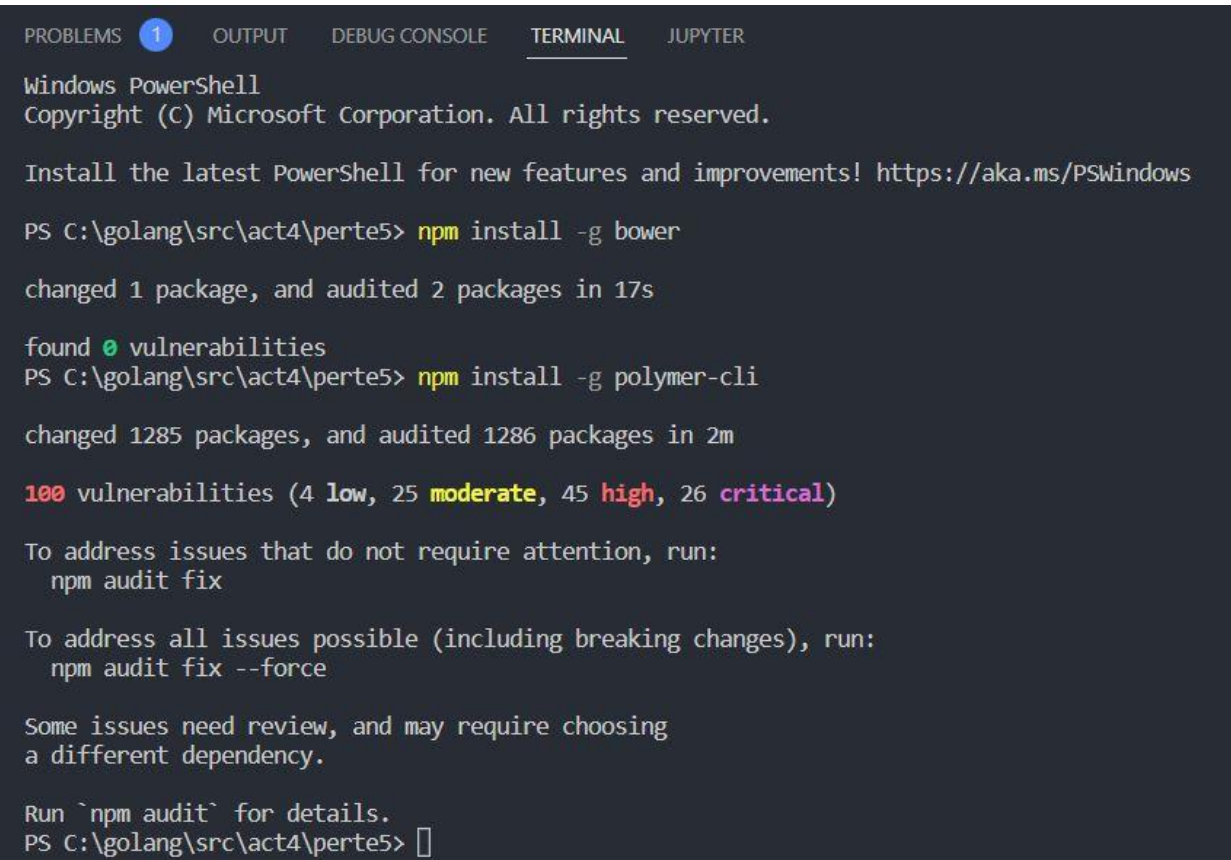
Jika sudah install node js dan git nyam aka tinggal masuk ke enviormen variable dan tambah kan file node js nya



Jika sudah menginstall maka kita bisa menginstall Polymer versi 2.0 dengan menggunakan bower.

Tahap Pertama yaitu :

- Membuat Folder Baru dengan **“Pert 5”**
- Membuka Visual Studio Code dan klik CTRL + `
- Lalu Install bower (mengetikkan pada terminal VSCODE **“npm install -g bower”**) bisa dilihat dibawah ini



```
PROBLEMS 1 OUTPUT DEBUG CONSOLE TERMINAL JUPYTER
Windows PowerShell
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PS C:\golang\src\act4\perte5> npm install -g bower

changed 1 package, and audited 2 packages in 17s

found 0 vulnerabilities
PS C:\golang\src\act4\perte5> npm install -g polymer-cli

changed 1285 packages, and audited 1286 packages in 2m

100 vulnerabilities (4 low, 25 moderate, 45 high, 26 critical)

To address issues that do not require attention, run:
  npm audit fix

To address all issues possible (including breaking changes), run:
  npm audit fix --force

Some issues need review, and may require choosing
a different dependency.

Run `npm audit` for details.
PS C:\golang\src\act4\perte5> 
```

Tahap Kedua yaitu :

- Menginstall polymer dengan mengetikkan (**“npm install -g polymer-cli”**)

```
PROBLEMS 1 OUTPUT DEBUG CONSOLE TERMINAL JUPYTER
get the best features, bug fixes, and security patches. If you are unable to upgrade at this time, paid support is available for older versions (hapi.im/
npm WARN deprecated sw-toolbox@3.6.0: Please migrate to Workbox: https://developers.google.com/web/tools/workbox/guides/migrations/migrate-from-sw
npm WARN deprecated request@2.85.0: request has been deprecated, see https://github.com/request/request/issues/3142
npm WARN deprecated request@2.79.0: request has been deprecated, see https://github.com/request/request/issues/3142
npm WARN deprecated mkdirp@0.5.1: Legacy versions of mkdirp are no longer supported. Please update to mkdirp 1.x. (Note that the API surface has changed
in 1.x.)
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npm WARN deprecated uuid@3.2.1: Please upgrade to version 7 or higher. Older versions may use Math.random() in certain circumstances, which is known to
. See https://v8.dev/blog/math-random for details.
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npm WARN deprecated github@7.3.2: 'github' has been renamed to '@octokit/rest' (https://git.io/vNB11)
npm WARN deprecated core-js@2.5.6: core-js@<3.23.3 is no longer maintained and not recommended for usage due to the number of issues. Because of the V8 e
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upgrade Bower to at least version 1.8.8 if you don't want to get hacked. More info: https://snyk.io/blog/severe-security-vulnerability-in-bowers-zip-arch

added 1390 packages, and audited 1391 packages in 4m

151 vulnerabilities (36 low, 26 moderate, 50 high, 39 critical)

To address issues that do not require attention, run:
  npm audit fix

Some issues need review, and may require choosing
a different dependency.

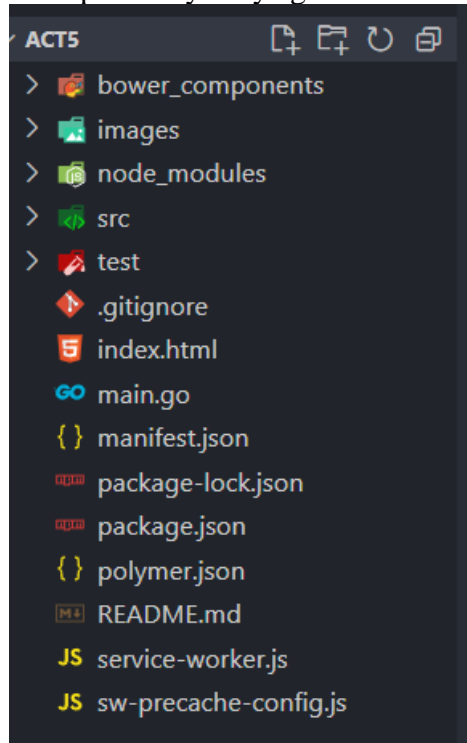
Run 'npm audit' for details.
PS C:\golang\src\act4\perte5>
```

Tahap Ketiga yaitu :

- Menginstall Polymer versi 2.0.0 dengan cara mengetikkan seperti ini
“bower install Polymer/polymer#^2.0.0”

```
PROBLEMS 1 OUTPUT DEBUG CONSOLE TERMINAL JUPYTER
PS C:\golang\src\act4\perte5> polymer init
'uname' is not recognized as an internal or external command,
operable program or batch file.
? Which starter template would you like to use? (Use arrow keys)
> polymer-3-element - A simple Polymer 3.0 element template
polymer-3-application - A simple Polymer 3.0 application
polymer-3-starter-kit - A Polymer 3.x starter application template, with navigation and "PRPL pattern" loading
polymer-2-element - A simple Polymer 2.0 element template
polymer-2-application - A simple Polymer 2.0 application
polymer-2-starter-kit - A Polymer 2.x starter application template, with navigation and "PRPL pattern" loading
shop - The "Shop" Progressive Web App demo (node:57184) Warning: Accessing non-existent property 'cat' of module exports inside circular dependency
(Use 'node --trace-warnings ...' to show where the warning was created)
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(node:57184) Warning: Accessing non-existent property 'chmod' of module exports inside circular dependency
(node:57184) Warning: Accessing non-existent property 'cp' of module exports inside circular dependency
(node:57184) Warning: Accessing non-existent property 'dirs' of module exports inside circular dependency
(node:57184) Warning: Accessing non-existent property 'pushd' of module exports inside circular dependency
(node:57184) Warning: Accessing non-existent property 'popd' of module exports inside circular dependency
(node:57184) Warning: Accessing non-existent property 'echo' of module exports inside circular dependency
(node:57184) Warning: Accessing non-existent property 'tempdir' of module exports inside circular dependency
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(node:57184) Warning: Accessing non-existent property 'set' of module exports inside circular dependency
(node:57184) Warning: Accessing non-existent property 'sort' of module exports inside circular dependency
? Which starter template would you like to use? polymer-3-starter-kit
info: Running template polymer-3-starter-kit...
info: Finding latest ^4.0.0 release of Polymer/polymer-starter-kit
```

Sampe file nya kaya gini



2. Jelaskan instalasi Polymer Starter kit dengan menggunakan Polymer versi 2.0 (Poin : 30)

Jawab:

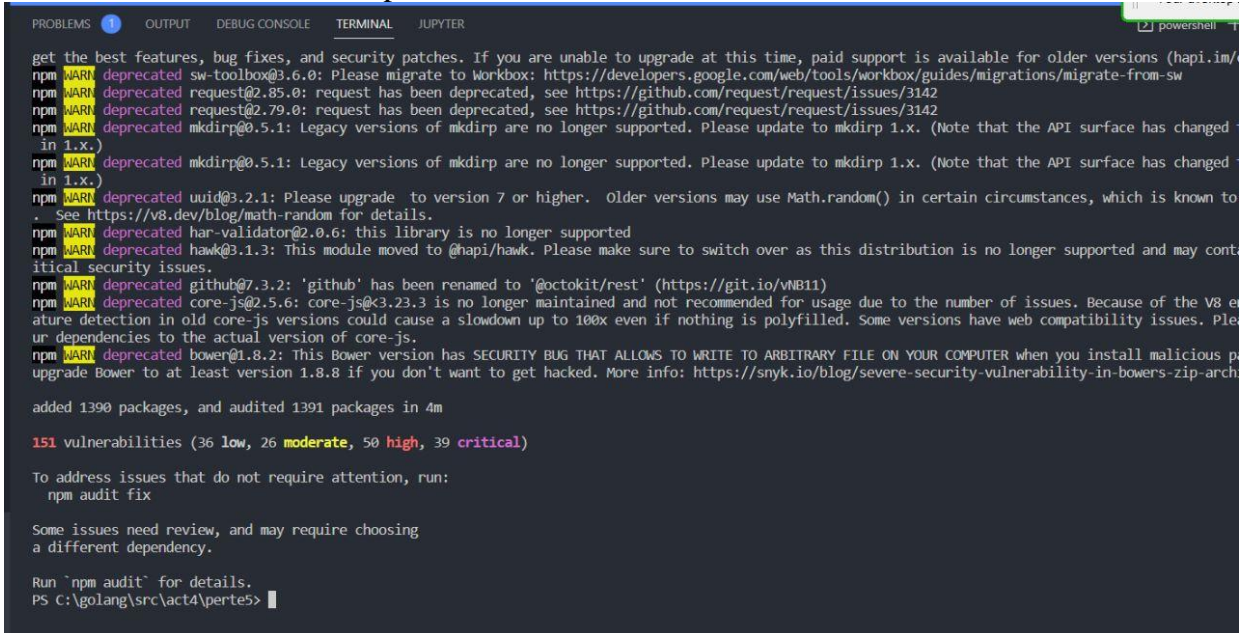
Setelah semua berhasil di install, Lalu kita mengetikkan “**polymer init**” untuk mengunduh template

polymer yang akan digunakan. Let’s Go!

```
PROBLEMS 1 OUTPUT DEBUG CONSOLE TERMINAL JUPYTER

PS C:\golang\src\act4\perte5> polymer init
'uname' is not recognized as an internal or external command,
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? Which starter template would you like to use? polymer-3-starter-kit
info: Running template polymer-3-starter-kit...
info: Finding latest ^4.0.0 release of Polymer/polymer-starter-kit
```


Seperti gambar di atas jika kita sudah mengetikkan “**polymer init**” Maka akan muncul tampilan untuk memilih template, Pada materi ini Polymer yang digunakan adalah versi 2 dan template yang akan digunakan adalah **Polymer Starter Kit**. Lalu jika kita sudah memilih **Polymer Starter Kit**, maka akan otomatis men-download template tersebut.



```
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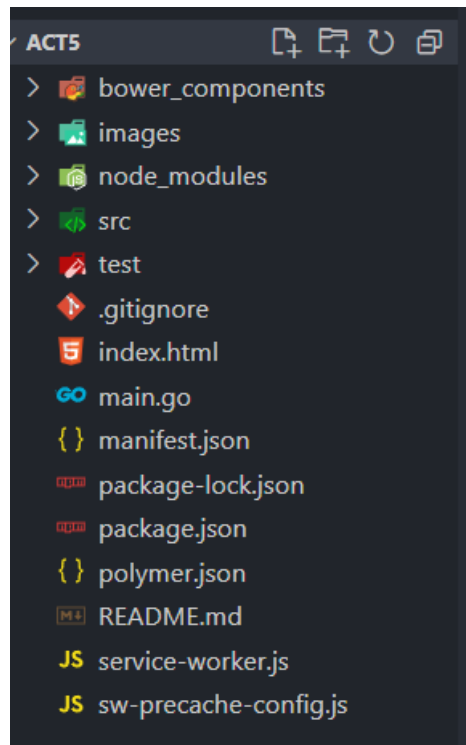
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Run `npm audit` for details.
PS C:\golang\src\act4\perts5>
```

Secara otomatis akan men-download file dan package ke dalam directory **Pert 5**. Seluruh komponen web yang telah di unduh akan tersimpan dalam direktori bower_components. Berikut dibawah ini sudah tersimpan dalam directory **Pert 5**.



3. Jalankan dan integrasikan Polymer Starter Kit dengan Golang (Poin : 40)

Jawab:

Untuk Menjalankan dan mengintegrasikan **Polymer Starter Kit**, Kita harus membuat file **main.go** terlebih dahulu seperti gambar dibawah ini.

```
GO main.go
1  package main
2
3  import (
4      "fmt"
5      "log"
6      "net/http"
7  )
8
9  func main() {
10     PORT := 8081
11     http.Handle("/", http.FileServer(http.Dir("polymer")))
12     fmt.Printf("Server Running on Port %d", PORT)
13     log.Fatal(http.ListenAndServe(fmt.Sprintf(":%d", PORT), nil))
14 }
15
```

Lalu ketik **go build** dan jalan an exe nya menggunakan perintah **./pert_5.exe**

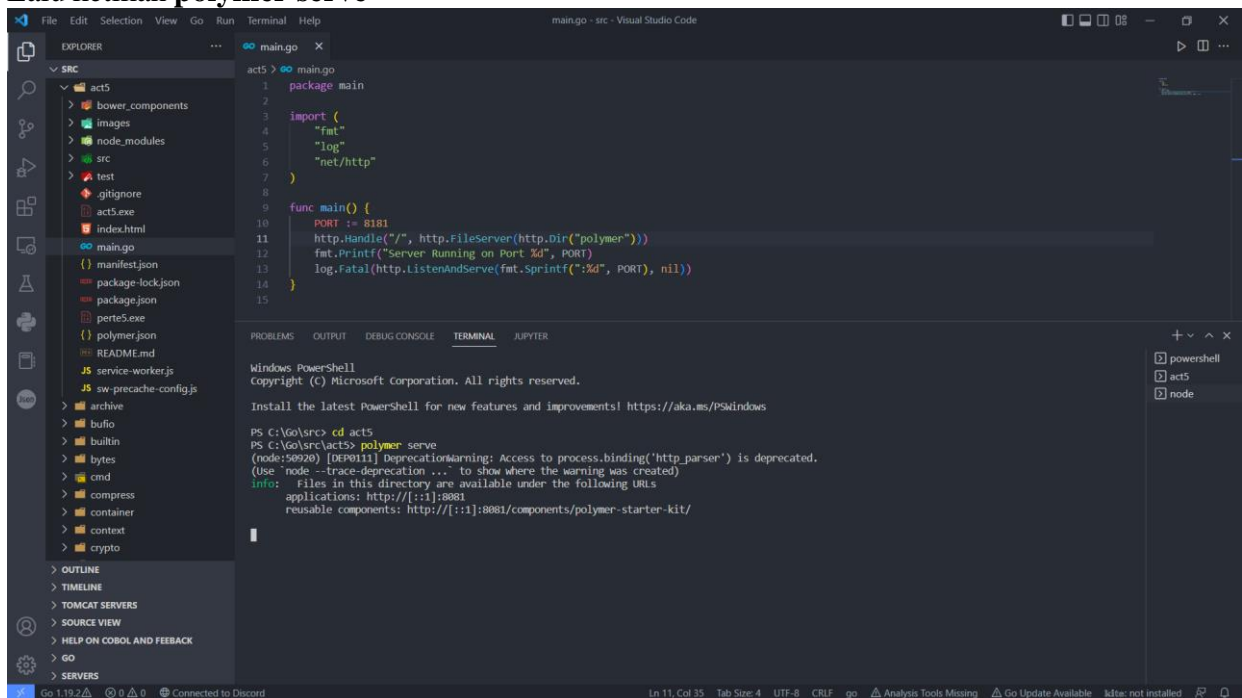
```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  JUPYTER

Windows PowerShell
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PS C:\Go\src> cd act5
PS C:\Go\src\act5> go build
PS C:\Go\src\act5> ./act5.exe
Server Running on Port 8181
```

Lalu ketikan **polymer serve**



The screenshot shows the Visual Studio Code interface. The Explorer sidebar on the left displays a project structure with folders like 'act5', 'bower_components', 'images', 'node_modules', 'src', 'test', and files like 'act5.exe', 'index.html', 'main.go', 'manifest.json', 'package-lock.json', 'package.json', 'pert5.exe', 'polymer.json', 'README.md', 'service-worker.js', and 'sw-precache-config.js'. The main editor area shows the 'main.go' file with the following code:

```
1 package main
2
3 import (
4     "fmt"
5     "log"
6     "net/http"
7 )
8
9 func main() {
10     PORT := 8181
11     http.Handle("/", http.FileServer(http.Dir("polymer")))
12     fmt.Printf("Server Running on Port %d", PORT)
13     log.Fatal(http.ListenAndServe(fmt.Sprintf(":%d", PORT), nil))
14 }
15
```

The TERMINAL panel at the bottom shows the following output:

```
Windows PowerShell
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Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

PS C:\Go\src> cd act5
PS C:\Go\src\act5> polymer serve
(node:50920) [DEP0111] DeprecationWarning: Access to process.binding('http_parser') is deprecated.
(Use 'node --trace-deprecation ...' to show where the warning was created)
info: Files in this directory are available under the following URIs
  applications: http://[::1]:8081
  reusable components: http://[::1]:8081/components/polymer-starter-kit/
```

On the right side of the terminal, there is a list of open files: 'powershell', 'act5', and 'node'.

Jika muncul seperti di atas tinggal buka [http://\[::1\]:8081](http://[::1]:8081)

Maka akan muncul seperti

