

Praktikum Alogaritma dan Pemrograman

Modul 5

Kegiatan 1.

The image displays two screenshots of the GvRng (Guido's World) software interface, which is used for learning programming through a virtual robot named Guido.

Top Screenshot:

- The main window shows a 26x13 grid. The robot, a small blue triangle, is at position (5, 4) and is carrying 0 beepers. The status bar at the bottom indicates "Robots position is 5 4 W and carrying 0 beepers".
- The code editor on the right contains the following code:

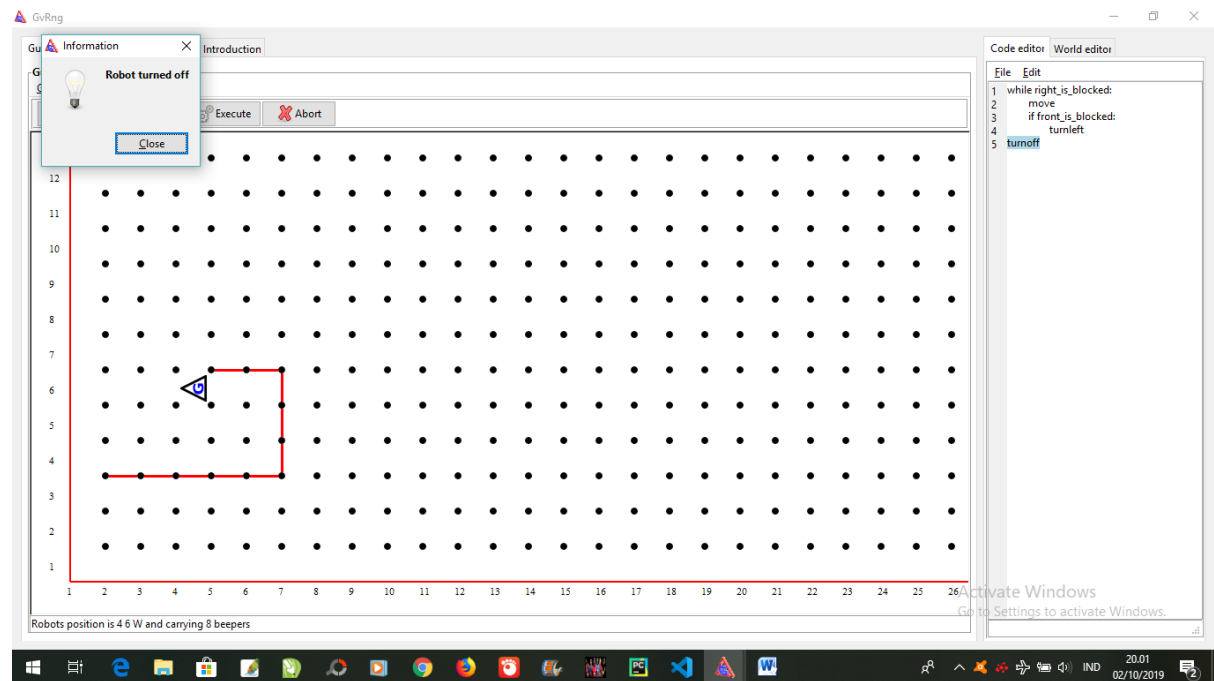
```
1 do 2:  
2   move  
3   do 2:  
4     putbeeper  
5   move  
6   do 4:  
7     putbeeper  
8   move  
9   do 2:  
10    turnleft  
11  while front_is_clear:  
12    move  
13    while next_to_a_beeper:  
14      pickbeeper  
15  turnoff
```

Bottom Screenshot:

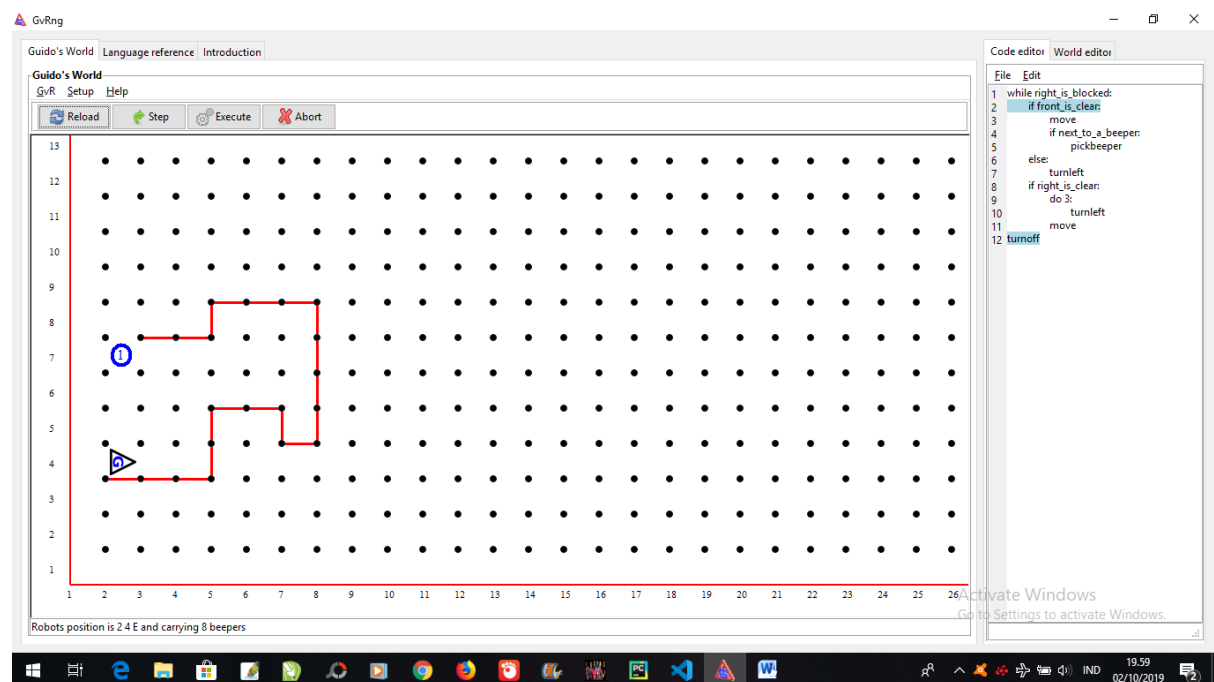
- An "Information" dialog box is open, displaying a lightbulb icon and the text "Robot turned off". The "Close" button is visible.
- The robot is now at position (14, 4) and is carrying 8 beepers. The status bar at the bottom indicates "Robots position is 14 4 W and carrying 8 beepers".
- The code editor on the right shows the same code as the top screenshot, but the line numbers are slightly different, indicating the robot has moved to the end of the code.

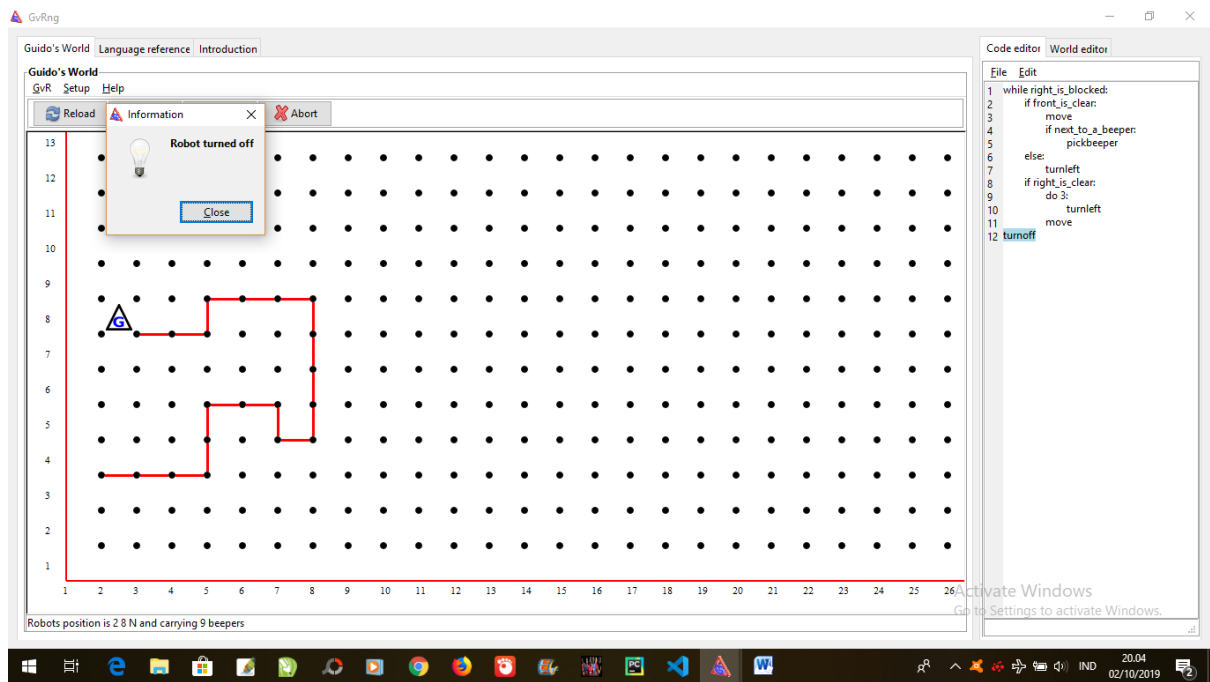
Kegiatan 2.

a.

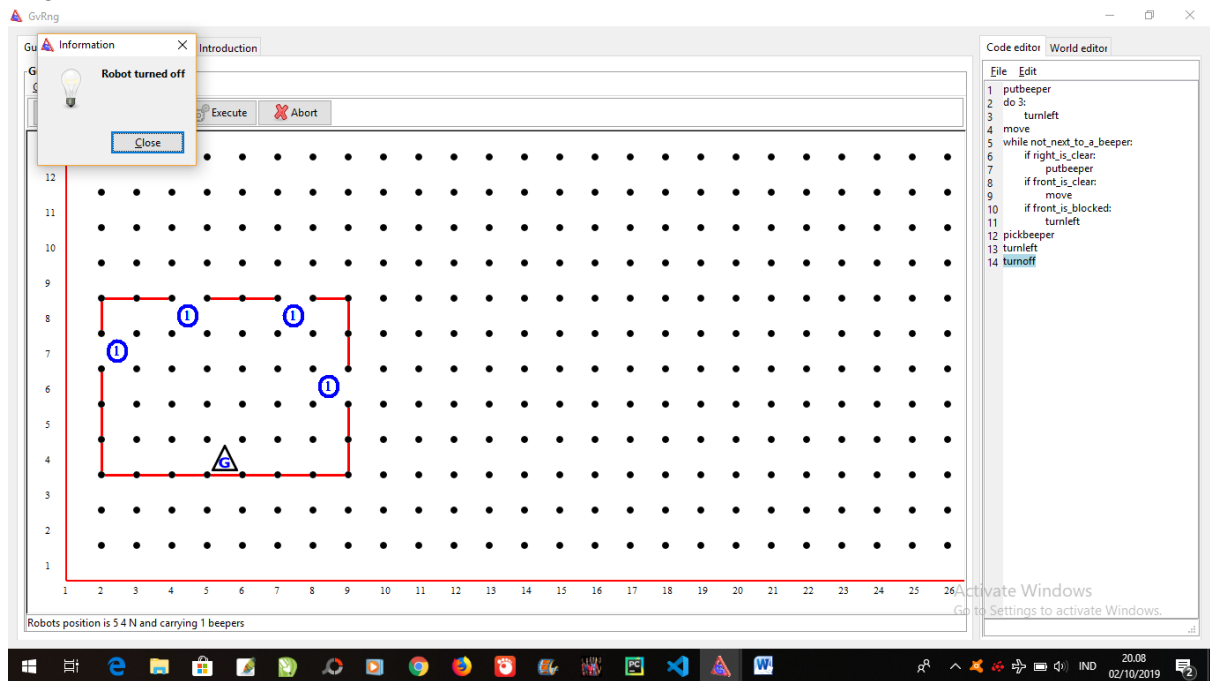


b.

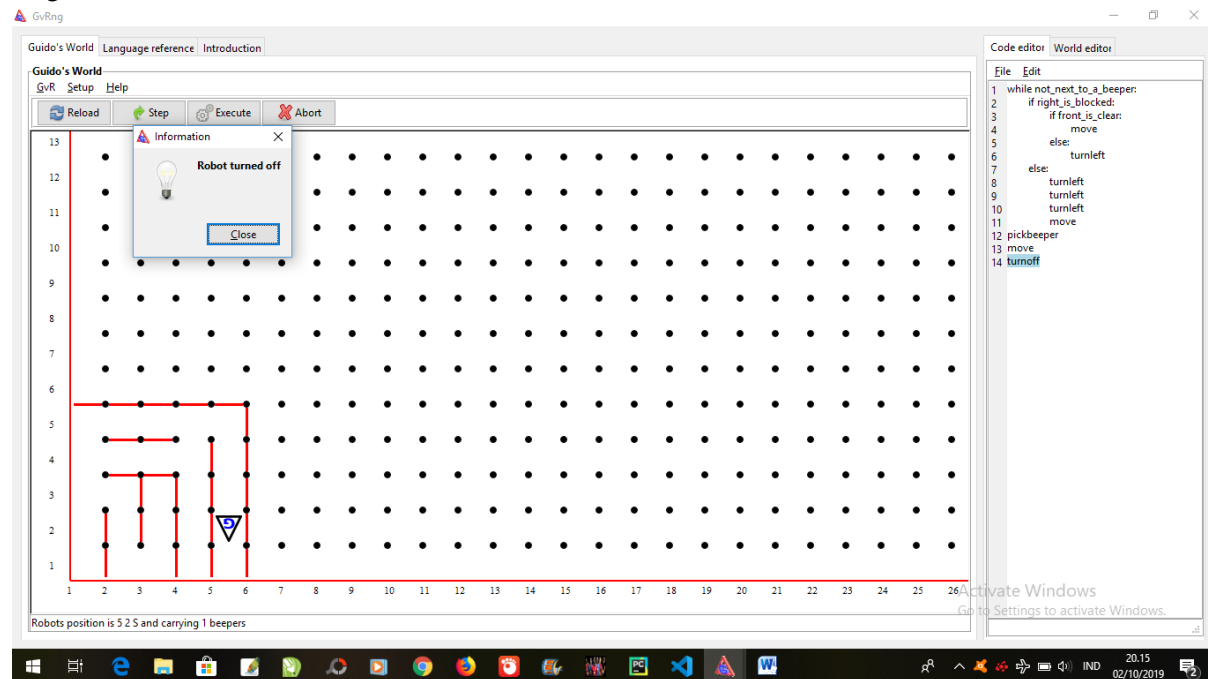




Kegiatan 3.



Kegiatan 4.



Alogaritma

Robot penjinak bom

Robot mengelilingi gedung dengan instruksi 14 baris, sehingga dapat menemukan bom yang disimulasikan dengan beeper lalu menjinakkannya.

Keterangan Alogaritma

Langkah :

1. Ketika robot tidak bertemu beeper, lakukan perintah berikut :
 - 1) Cek dinding kanan, apabila tergalang dinding lakukan perintah berikut :
 - a) Jika depan lowong, maju satu langkah
 - b) Jika depan tergalang, hadap kiri
 - 2) Cek dinding kanan, apabila lowong hadap kiri 3 kali dan maju satu langkah
2. Ambil beeper
3. Selesai