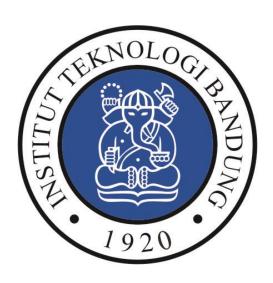
TUGAS BESAR IF2121 LOGIKA INFORMATIKA PEMBUATAN SURVIVAL ADVENTURE GAME MENGGUNAKAN GNU PROLOG



Dibuat oleh

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INSTITUT TEKNOLOGI BANDUNG 2017

A. Penjelasan Command

Pada Survival Adventure Game yang kami buat, kami menggunakan beberapa *command* yang diantaranya adalah:

1. Start

Kegunaan dari *command* ini adalah untuk memulai permainan. Apabila *command* ini dipanggil, maka pengguna akan diminta memasukkan nama dan pilihan new game/load game. Di layar akan ditampilkan judul, pembukaan, *available commands*, legenda, dan permainan dimulai dengan pemberitahuan berupa letak awal pemain tersebut dan pemberitahuan tempat yang melingkupinya. Contoh penggunaan start:

2. Help

Kegunaan dari *command* ini adalah untuk memunculkan seluruh *command* yang dapat dipakai di permainan ini. Contoh penggunaan help :

```
<What to do?> help.
Available commands:
start. -- start the game!
help. -- show available commands
suicide. -- quit the game, and die
look. -- look around you
n. s. e. w. -- move
map. -- look at the map and detect enemies (need radar to use)
take(Object). -- gick up an object
drop(Object). -- use an object
use(Object). -- use an object
attack. -- attack enemy that crosses your path
status. -- show your status
save(Filename). -- sove your game
load(Filename). -- load previously saved game
```

3. Map

Kegunaan dari *command* ini adalah untuk menampilkan seluruh peta permainan. Untuk menggunakan *command* ini, player harus memiliki item radar. Yang ditampilkan ketika command map dipanggil adalah musuh, minuman, makanan, *medicine*, maupun *weapon* yang berada di lokasi tersebut serta lokasi player. Urutan prioritas yang ditampilkan adalah musuh, *medicine*, makanan, minuman, *weapon*, lokasi player, dan penanda kosong (_). Contoh penggunaan map:

4. Look

Kegunaan dari *command* ini adalah untuk menampilkan sebagian kecil lokasi berukuran 3 x 3 yang merupakan kondisi sekeliling dari player. Yang ditampilkan ketika command look dipanggil hanya lokasi-lokasi yang mengelilingi koordinat dimana pemain berada, musuh, minuman, makanan, *medicine*, maupun *weapon* yang berada di lokasi tersebut serta lokasi player. Urutan prioritas yang ditampilkan adalah musuh, *medicine*, makanan, minuman, *weapon*, lokasi player, dan penanda kosong (__). Contoh penggunaan look:

```
<What to do?> look.
You are at the braga
- - W
_ P F
_ M E
```

5. N, E, S, W

Kegunaan dari *command* ini adalah untuk berpindah tempat. Apabila pemain menulis n, maka pemain akan bergerak ke utara. Jika e, maka pemain akan bergerak ke timur, jika s maka pemain akan bergerak ke selatan, dan jika w maka pemain akan bergerak ke barat. Contohnya adalah jika pemain berada di koordinat (0,5) dan pemain menuliskan e, maka pemain akan berpindah tempat ke koordinat (0,6). Contoh penggunaan n, e, s, w:

```
\text{\text{What to do?} w.}
You are at the braga. The North side is the braga. Turn around and the South side happens
to be the braga. In the East side, you can see the farm. In your West side, there is the cisitu.

\text{\text{\text{What to do?}} e.}
You are at the farm. The North side is the braga. Turn around and the South side happens
to be the braga. In the East side, you can see the braga. In your West side, there is the braga.

There are items on the ground. You see:
nasiKorea

\text{\text{\text{What to do?}} n.}
You are at the braga. The North side is the alunalun. Turn around and the South side happens
to be the farm. In the East side, you can see the itb. In your West side, there is the braga.

There are items on the ground. You see:
warmTea

\text{\text{\text{What to do?}} s.}
You are at the farm. The North side is the braga. Turn around and the South side happens
to be the braga. In the East side, you can see the braga. In your West side, there is the braga.

There are items on the ground. You see:
nasiKorea
```

6. Attack

Kegunaan dari *command* ini adalah untuk menyerang musuh yang berada satu petak dengan player. Ketika player berpindah tempat, keberadaan musuh akan dicek dan akan dikeluarkan pesan peringatan. Untuk melakukan attack, pemain harus menggunakan command use/1 untuk menggunakan senjata terlebih dahulu. Saat melakukan attack, enemy yang sedang berada dalam petak dapat balas menyerang dan tidak berpindah tempat. Setelah selesai attack, senjata yang telah digunakan tak dapat digunakan lagi, harus menggunakan senjata baru (use lagi). Contoh penggunaan attack:

```
What to do?> use(gun).
Ouch! The enemy attacked you. Your lifepoint is reduced by 42
You have taken a gun. You can use it to attack enemy.

<What to do?> attack.
Ouch! The enemy attacked you. Your lifepoint is reduced by 24
Looks like you shot the Enemy right in his big fat belly!
Enemy's lifepoint is reduced by 350. Its lifepoint is now 150
The enemy is still alive, beware!

<What to do?> use(gun).
Ouch! The enemy attacked you. Your lifepoint is reduced by 64
You don't have gun in your inventory.

<What to do?> use(knife).
Ouch! The enemy attacked you. Your lifepoint is reduced by 48
You have taken a knife. You can use it to attack enemy.

<What to do?> attack.
Ouch! The enemy attacked you. Your lifepoint is reduced by 30
The sharp knife stabbed right on the Enemy's right arm!
Enemy's lifepoint is reduced by 200. Its lifepoint is now 0
```

7. Take

Kegunaan dari *command* ini adalah untuk mengambil barang, baik itu makanan, minuman, maupun senjata dari lokasi dimana pemain berada. Contohnya adalah apabila pemain sedang berada di titik (1,2) dan pada map terlihat bahwa disitu ada nasiKorea, maka pemain bisa mengambil nasiKorea tersebut dengan cara menulis take(nasiKorea) dan secara otomatis nasiKorea tersebut akan masuk ke *list inventory*-nya.

8. Use

Kegunaan dari *command* ini adalah untuk menggunakan barang yang pemain miliki di *inventory list*. Apabila pemain menggunakan makanan, maka *hunger* pemain tersebut akan bertambah. Apabila pemain menggunakan *medicine*, maka *health* pemain akan bertambah. Apabila pemain menggunakan minuman, maka *thirst* pemain tersebut akan bertambah. Barang apapun yang telah digunakan oleh pemain, akan hilang dari *inventory list*.

Contoh penggunaan take dan use:

```
There are items on the ground. You see: blackElixir

<What to do?> take(blackElixir).
You took the blackElixir.

<What to do?> use(blackElixir).
You've healed yourself using blackElixir.

<What to do?> use(lollipop).
Yum! You have eaten a lollipop.
```

9. Drop

Kegunaan dari *command* ini adalah untuk membuang barang yang pemain miliki di *inventory list*-nya. Contohnya adalah apabila pemain memiliki apel di *list* tersebut, maka jika pemain menulis drop(apel), apel tersebut sudah tidak menjadi miliknya. Tetapi, berbeda dengan *use*, saat pemain *drop* suatu makanan maka *hunger* dari pemain tersebut tidak akan bertambah. Contoh penggunaan drop (dan take):

```
<What to do?> take(gun).
You took the gun.

<What to do?> e.
You are at the itb. The North side is the Town Border. Turn around and the South side happens
to be the alunalun. In the East side, you can see the alunalun. In your West side, there is the itb.

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```

10. Status

Kegunaan dari *command* ini adalah untuk menampilkan status terakhir pemain. Status yang akan ditampilkan adalah *health*, *thirst*, *hunger*, senjata yang sedang pemain pegang, dan *inventory list* dari pemain tersebut. Contoh penggunaan status:

```
<What to do?> status.
Health: 751/1000
Thirst: 79.0/100
Hunger: 73/100
You are not using a weapon right now.
You have 2 items in your inventory:
[lightSaber,knife]
```

11. Suicide

Kegunaan dari command ini adalah keluar dari game (dengan cara 'bunuh diri') dan memberitahu kepada pemain bahwa permainan telah berakhir.

```
<What to do?> suicide.
The game has Ended. You killed yourself.
You are not taking good care of yourself. Medicines can't anymore help you. You are now Dead :(
GAME OVER

Thanks for playing this game ^-^ Have a nice day!
-Yora, Haifa, Nadija, Kayu
```

12. Save

Kegunaan dari *command* ini adalah untuk menyimpan status terakhir pemain ke dalam suatu file agar pemain tersebut bisa melanjutkannya di waktu lain. Apa bila pemain menulis save, maka seluruh status terakhir permainan tersebut akan di simpan di file bernama savedData.txt.

13. Load

Kegunaan dari *command* ini adalah untuk memuat game yang telah disimpan sebelumnya. Apabila pemain menuliskan load, atau memilih opsi load pada pertanyaan (newgame/loadgame) maka permainan akan dimulai dengan melanjutkan game yang sudah tersimpan di file savedData.txt.

Contoh save dan load:

14. Enemy

Kegunaan dari *command* ini adalah sebagai *command* otomatis, yaitu memberikan perintah kepada enemy untuk bergerak secara random dan menyerang pemain jika berada dengan kotak yang sama dengan pemain (command ini tidak diberikan untuk user interface, tetapi berjalan secara otomatis untuk enemy).

B. Hasil Eksekusi Program

```
| ?- start.
Enter your name: haifa.
Start new game/Load previously saved game? (newgame/load): newgame. NEW GAME - The game is ready to be started.
     MMP""MM""YMM `7MM"""Mq.
                                                                             `7MM"""Mq.`7MM"""Mq.`7MM"""YMM
MM `MM. MM `MM. MM `7
                                                             db
                                                                                                                                       7MM"""Yb
                                                            ;MM:
                                                                                                                                         MM
               MM
                                MM
                                          ,M9
                                                         ,V^MM.
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              MM
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                                                                                                 MM
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            .JMML.
                              .JMML. .JMM..AMA.
                                                                  .AMMA..JMML.
                                                                                               .JMML.
                                                                                                                .JMMmmmMMM .JMMmmmdP
On, Hello halfa.

Actually I'm not going to welcome you or anything. You're kinda unlucky today.

Have you seen the enormous writing sign above? Yes. You are trapped, unfortunately.

You can't go anywhere, your space are surrounded with borders. And oh, by the way you are in Bandung now.

So many 'enemies' here. They hurt people, you are included. It's like a game, you kill all of them, you win.

If you win, you can easily go away from here, otherwise, you die tragically.

So, just let it be and do all you can. I'll help you throughout your journey.
PS: You can just suicide if you can't take it anymore. Sorry.
Available commands:
                                s:
-- start the game!
-- show available commands
-- quit the game, and die
-- look around you
    start.
    help.
    suicide.
    look.
                                -- move
-- look at the map and detect enemies (need radar to use)
    n. s. e. w.
                                -- pick up an object
-- drop an object
-- use an object
    take(Object).
    drop(Object).
    use(Object).
    drop(Object).
                               -- drop an object
   use(Object). -- use an object
attack. -- attack enemy that crosses your path
status. -- show your status
save(Filename). -- save your game
load(Filename). -- load previously saved game
Legends:
    M = medicine
F = food
W = water
    * = weapon or radar
   * = weapon or rad
P = player
E = enemy
- = accessible
X = inaccessible
Just try to find things and use them. Good luck, haifa!
You are at the braga. The North side is the braga. Turn around and the South side happens to be the braga. In the East side, you can see the farm. In your West side, there is the cisitu.
 <What to do?> n.
You are at the braga. The North side is the alunalun. Turn around and the South side happens to be the braga. In the East side, you can see the braga. In your West side, there is the braga.
You are at the braga. The North side is the alunalun. Turn around and the South side happens
to be the farm. In the East side, you can see the itb. In your West side, there is the braga.
There are items on the ground. You see:
<What to do?> take(warmTea).
You took the warmTea.
```

```
<what to do?> attack.
Ouch! The enemy attacked you. Your lifepoint is reduced by 28
The sharp knife stabbed right on the Enemy's right arm!
Enemy's lifepoint is reduced by 200. Its lifepoint is now 300
   The enemy is still alive, beware!
  _ P F
   <what to do?> e.
Ouch! The enemy attacked you. Your lifepoint is reduced by 29
You are in the forest. The North side is the lake. Turn around and the South side happens
to be the plains. In the East side, you can see the forest. In your West side, there is the plains.
   There are items on the ground. You see:
   lollipop
  Oh No! You met an enemy.
You have to attack them before you get attacked first!
\mbox{\sc what to do?}\mbox{\sc take(gun).} Ouch! The enemy attacked you. Your lifepoint is reduced by 64 You took the gun.
\langle what to do?> take(lollipop). Ouch! The enemy attacked you. Your lifepoint is reduced by 70 You took the lollipop.
<what to do?> attack.
Ouch! The enemy attacked you. Your lifepoint is reduced by 48
You can't attack with bare hands, you would kill yourself.
Use a weapon to attack.
(what to do?) use(gun). Ouch! The enemy attacked you. Your lifepoint is reduced by 31 You have taken a gun. You can use it to attack enemy.
<what to do?> attack.
Ouch! The enemy attacked you. Your lifepoint is reduced by 52
Looks like you shot the Enemy right in his big fat belly!
Enemy's lifepoint is reduced by 350. Its lifepoint is now 150
The enemy is still alive, beware!
<what to do?> status.
Health: 607/1000
Thirst: 98.5/100
Hunger: 97/100
You are not using a weapon right now.
You have 3 items in your inventory:
[lollipop,nasiKorea,radar]
<what to do?> look.
You are at the forest
WP_
```

```
<what to do?> w.
Ouch! The enemy attacked you. Your lifepoint is reduced by 39
You are in the plains. The North side is the lake. Turn around and the South side happens
to be the farm. In the East side, you can see the forest. In your West side, there is the plains.
There are items on the ground. You see: warmTea \,
<what to do?> take(warmTea).
You took the warmTea.
<what to do?> n.
You are in the lake. The North side is the lake. Turn around and the South side happens to be the plains. In the East side, you can see the lake. In your West side, there is the lake.
<what to do?> look.
You are at the lake
F P _
_ E _
<what to do?> w.
You are in the lake. The North side is the plains. Turn around and the South side happens to be the plains. In the East side, you can see the lake. In your West side, there is the lake.
There are items on the ground. You see:
lollipop
mineralWater
<what to do?> take(lollipop).
You took the lollipop.
\langle what \ to \ do? \rangle take(mineralWater). You took the mineralWater.
You are in the plains. The North side is the lake. Turn around and the South side happens to be the lake. In the East side, you can see the lake. In your West side, there is the plains.
There are items on the ground. You see: \ensuremath{\operatorname{mineralWater}}
<what to do?> look.
You are at the plains
\langlewhat to do?\rangle n. You are in the lake. The North side is the lake. Turn around and the South side happens to be the plains. In the East side, you can see the lake. In your West side, there is the forest.
<what to do?> look.
You are at the lake
_ P E
_ W _
```

```
There are items on the ground. You see:
blackElixir
pokariSwet
<what to do?> take(blackElixir).
You took the blackElixir.
<what to do?> look.
You are at the lake
ЕР_
_ _ _
<what to do?> look.
You are at the forest
E E _
_ P W
There are items on the ground. You see: pokariSwet
<what to do?> look.
You are at the lake
* - -
ЕР_
_ _ _
<what to do?> n.
You are in the forest. The North side is the Town Border. Turn around and the South side happens to be the lake. In the East side, you can see the lake. In your West side, there is the forest.
<what to do?> look.
You are at the forest
# # #
* P _
_₩_
```

```
There are items on the ground. You see:
Oh No! You met an enemy. You have to attack them before you get attacked first!
\mbox{\sc what to do?}\mbox{\sc take(gun).} Ouch! The enemy attacked you. Your lifepoint is reduced by 65 You took the gun.
<what to do?> use(gun).
Ouch! The enemy attacked you. Your lifepoint is reduced by 28
You have taken a gun. You can use it to attack enemy.
<what to do?> attack.
Ouch! The enemy attacked you. Your lifepoint is reduced by 72
Looks like you shot the Enemy right in his big fat belly!
Enemy's lifepoint is reduced by 350. Its lifepoint is now 150
The enemy is still alive, beware!
<what to do?> status.
Health: 477/1000
Thirst: 93.0/100
Hunger: 86/100
You are not using a weapon right now.
You have 7 items in your inventory:
[blackElixir,mineralWater,lollipop,warmTea,lollipop,nasiKorea,radar]
\mbox{\sc what to do?}\sc use(nasiKorea). Ouch! The enemy attacked you. Your lifepoint is reduced by 30 Yum! You have eaten a nasiKorea.
<what to do?> use(warmTea).
Ouch! The enemy attacked you. Your lifepoint is reduced by 68
Yay! You drank a warmTea.
what to do?> status.
Health: 379/1000
Thirst: 98.0/100
Hunger: 100/100
You are not using a weapon right now.
You have 5 items in your inventory:
[blackElixir,mineralWater,lollipop,lollipop,radar]
<what to do?> e.
Ouch! The enemy attacked you. Your lifepoint is reduced by 54
You are in the forest. The North side is the Town Border. Turn around and the South side happens
to be the lake. In the East side, you can see the lake. In your West side, there is the forest.
<what to do?> look.
You are at the forest
# # #
ЕР_
_ W _
<what to do?> look.
You are at the forest
# # #
_ P E
_ E W
```

```
<what to do?> look.
You are at the forest
_ P W
_ E _
<what to do?> s.
Ouch! The enemy attacked you. Your lifepoint is reduced by 28
You are in the forest. The North side is the forest. Turn around and the South side happens
to be the forest. In the East side, you can see the lake. In your West side, there is the forest.
<what to do?> e.
You are in the lake. The North side is the lake. Turn around and the South side happens
to be the lake. In the East side, you can see the lake. In your West side, there is the forest.
<what to do?> look.
You are at the lake
_ P _
_ W _
<what to do?> s.
You are in the plains. The North side is the lake. Turn around and the South side happens to be the lake. In the East side, you can see the lake. In your West side, there is the plains.
There are items on the ground. You see: \ensuremath{\operatorname{mineralWater}}
<what to do?> e.
You are in the lake. The North side is the lake. Turn around and the South side happens
to be the lake. In the East side, you can see the lake. In your West side, there is the
                                                                                      the lake.
```

```
<what to do?> e.
<wmat to do/> e.
You are in the forest. The North side is the lake. Turn around and the South side happens
to be the lake. In the East side, you can see the forest. In your West side, there is the
There are items on the ground. You see:
warmTea
<what to do?> look.
You are at the forest
_ P _
- - -
<what to do?> s.
You are in the lake. The North side is the forest. Turn around and the South side happens
to be the forest. In the East side, you can see the lake. In your West side, there is the
                                                                                                                               the forest.
<what to do?> s.
You are in the forest. The North side is the forest. Turn around and the South side happens
to be the village. In the East side, you can see the village. In your West side, there is the forest.
<what to do?> look.
You are at the forest
_ P _
_ * _
You are in the village. The North side is the forest. Turn around and the South side happens to be the village. In the East side, you can see the village. In your West side, there is the forest.
There are items on the ground. You see:
knife
<what to do?> take(knife).
You took the knife.
<what to do?> e.
You are in the village. The North side is the village. Turn around and the South side happens to be the forest. In the East side, you can see the forest. In your West side, there is the village.
<what to do?> look.
You are at the village
_ P _
М _ _
<what to do?> e.
You are in the forest. The North side is the forest. Turn around and the South side happens to be the forest. In the East side, you can see the forest. In your West side, there is the village.
<what to do?> look.
You are at the forest
_ P W
_ _ _
<what to do?> use(radar).
You are now holding your Map. Use command map to open it.
```

```
<what to do?> map.
You are now opening your map.
# _ F F _ _ _ _ _ M _ M _ _ _ _ W _ _ #
# _ _ _ W F _ _ W _ _ E _ _ W _ _ _ M _ _ #
# _ _ _ _ * _ _ M #
# _ _ F * E _ _ _ M _ E _ _ M _ _ W _ _ #
# _ E _ _ _ F _ E _ _ _ W _ _ _ * _ _ _ #
# M * _ _ _ * M _ * W _ #
# _ F _ _ _ E _ _ _ #
# _ _ * _ _ _ E _ _ _ F _ _ _ #
# _ _ F M _ _ _ _ P W _ _ _ M #
# W _ _ * _ _ F _ _ E M _ _ _ _ W _ #
<what to do?> w.
You are in the village. The North side is the village. Turn around and the South side happens to be the forest. In the East side, you can see the forest. In your West side, there is the village.
<what to do?> w.
You are in the village. The North side is the forest. Turn around and the South side happens to be the village. In the East side, you can see the village. In your West side, there is the forest.
Oh No! You met an enemy. You have to attack them before you get attacked first!
\mbox{\sc (what to do?)} use(seblak). Ouch! The enemy attacked you. Your lifepoint is reduced by 30 Yum! You have eaten a seblak.
\ what to do?> use(mineralWater). Ouch! The enemy attacked you. Your lifepoint is reduced by 56 Yay! You drank a mineralWater.
<what to do?> status.
Health: 163/1000
Thirst: 98.5/100
Hunger: 93/100
You are not using a weapon right now.
You have 4 items in your inventory:
[knife,blackElixir,mineralWater,lollipop]
\mbox{\sc what to do?}\sc \mbox{\sc use}(\mbox{\sc lollipop}). Ouch! The enemy attacked you. Your lifepoint is reduced by 72 Yum! You have eaten a lollipop.
(what to do?) use(mineralWater). Ouch! The enemy attacked you. Your lifepoint is reduced by 72 \,
 <what to do?> status.
(what to do?) status.
Health: 19/1000
Thirst: 100/100
Hunger: 95/100
You are not using a weapon right now.
You have 2 items in your inventory:
[knife,blackElixir]
<what to do?> n.
Ouch! The enemy attacked you. Your lifepoint is reduced by 68
You are in the forest. The North side is the forest. Turn around and the South side happens
to be the village. In the East side, you can see the village. In your West side, there is the forest.
You are not taking good care of yourself. Medicines can't anymore help you. You are now Dead :(
GAME OVER
true ?
```

C. Pembagian Tugas

Pembagian tugas dari kelompok kami adalah sebagai berikut.

| Nama | NIM | Tugas |
|-----------------------|----------|---|
| Dinda Yora Islami | 13516067 | Membuat command start, enemy, dan |
| | | quit, dan membuat sebagian laporan. |
| Haifa Fadhila Ilma | 13516076 | Membuat command n, w, s, e, use, |
| | | attack, status, pesan user interface, dan |
| | | sebagian laporan. |
| I Kadek Yuda | 13516115 | Membuat command map, look, help, |
| Budipratama Giri | | dan deskripsi map dan look pada |
| | | laporan. |
| Nadija Herdwina P. S. | 13516130 | Membuat command take, drop, save, |
| | | dan load, serta membuat sebagian |
| | | laporan. |

Pengerjaan tugas kami lakukan pada waktu tertentu dengan rincian sebagai berikut:

- Senin, 13 November 2017 : Pengerjaan awal dan pengumpulan deliverables. Progress 15%.
- Sabtu. 18 November 2017 : Membuat fakta-fakta dan rules yang diperlukan. Progress 60%.
- Senin, 20 November 2017 : Melanjutkan pembuatan fakta dan rules. Progress 70%.
- Kamis, 23 November 2017 : Debugging rules, perbaikan interface, debugging program utama. Progress 80%.
- Jumat, 24 November 2017 : Debugging rules, perbaikan interface, debugging program utama. Pembuatan laporan. Progress 95%.
- Sabtu, 25 November 2017: Perbaikan interface, melengkapi laporan, pengumpulan. Progress 100%.