- **Tuliskan tahapan apa saja yang umumnya diperlukan untuk membangun suatu program CLIPS! (Gunakan buku Expert Systems: Principles and Programming by Giarratano, J. C., & Riley, G. sebagai referensi)**

  Program CLIPS terdiri dari 3 komponen utama yakni:

  a. Facts : Pengetahuan dasar yang dimiliki oleh sistem dan dapat berupa string, integerm simbol, float, dan lain-lain.

  b. Rules : Aturan yang dijalankan berdasarkan fakta yang ada untuk menghasilkan fakta baru. Terdapat 2 bagian dalam rules yakni Left-Hand Side (LHS) dan Right-Hand Side (RHS). LHS dapat dipandang sebagai IF sedangkan RHS dapat dipandang sebagai then.

  c. Interference Engine : aturan bagaimana rules dijalankan. Programmer dapat menentukan urutannya sendiri dengan menambah salience. Salience akan berperan sebagai supplementary knowledge pada RBS Forward-Chaining. Rule dengan salience tinggi akan dilaksanakan lebih dahulu dibanding salience rendah. Jika salience sama, rule baru akan dieksekusi terlebih dahulu.

  Sebuah Program CLIPS membutuhkan ketiga komponen tersebut agar dapat dijalankan. Namun karena Interference Engine sudah ditangani oleh CLIPS itu sendiri, maka hanya Facts dan Rules serta salience yang perlu dibuat oleh programmer. Oleh karena itu, tahapan yang perlu dilakukan untuk membangun suatu program CLIPS adalah:

  1. Memahami Sintaks CLIPS (if then else/variable naming/ dll)
  2. Menambah facts dengan command (deffacts)
  3. Menambah rules dengan command (defrules)
  4. Menambahkan salienece pada rules jika dibutuhkan
  5. Menjalankan program dengan command (run)
  6. Program akan otomatis menjalankan rules berdasarkan fakta yang ada

- **Secara garis besar, bagaimana flow kerja program yang anda pilih? (Apabila dirasa mempermudah, boleh melampirkan gambar)**

  1. Pada saat program di load, working memory diisi oleh fakta pre-determined

```
CLIPS> (load emergency_room.clp)
$*******************
TRUE
CLIPS> (reset)
CLIPS> (facts)
f-1     (clinician 0 idle none)
f-2     (clinician_time 0 0)
f-3     (clinician 1 idle none)
f-4     (clinician_time 1 0)
f-5     (clinician 2 idle none)
f-6     (clinician_time 2 0)
f-7     (clinician 3 idle none)
f-8     (clinician_time 3 0)
f-9     (clinician 4 idle none)
f-10    (clinician_time 4 0)
f-11    (clinician 5 idle none)
f-12    (clinician_time 5 0)
f-13    (patient 0 thiopental 0)
f-14    (patient 1 als 0)
f-15    (patient 2 zero_negative_blood_unit 0)
f-16    (patient 3 tourniquet 0)
f-17    (patient 4 REBOA 0)
f-18    (patient 5 toracotomy 0)
For a total of 18 facts.
```

  2. saat di load, rules juga diisi sehingga sudah ada sekian rules yang siap untuk dijalankan

```
CLIPS> (rules)
administer_thiopental
check_patient_hypotension
stop_checking_patient_hypotension
start_als
administer_adrenaline
stop_als
administer_tranexamic_acid
administer_fibrinogen
administer_zero_negative_blood_unit
clinician_administer_zero_negative_blood_unit
do_not_administer_zero_negative_blood_unit
administer_MTP
check_missing_drugs
apply_tourniquet
apply_reboa
apply_toracotomy
check_patient_notification
notify_clinician
stop_notification
For a total of 19 defrules.
```

3. Berdasarkan fakta yang di load di awal, terdapat beberapa aturan yang dapat dijalankan. Aturan yang dapat dijalankan tersebut akan dimasukkan ke agenda. Aturan tersebut diurutkan berdasarkan salience dan jika ada salience yang sama, rule terbaru lah yang pertama dijalankan.

```
CLIPS> (agenda)
3       administer_zero_negative_blood_unit: f-1,f-2,f-15
3       administer_zero_negative_blood_unit: f-3,f-4,f-15
3       administer_zero_negative_blood_unit: f-5,f-6,f-15
3       administer_zero_negative_blood_unit: f-7,f-8,f-15
3       administer_zero_negative_blood_unit: f-9,f-10,f-15
3       administer_zero_negative_blood_unit: f-11,f-12,f-15
2       apply_toracotomy: f-1,f-2,f-18
2       apply_toracotomy: f-3,f-4,f-18
2       apply_toracotomy: f-5,f-6,f-18
2       apply_toracotomy: f-7,f-8,f-18
2       apply_toracotomy: f-9,f-10,f-18
2       apply_toracotomy: f-11,f-12,f-18
2       apply_reboa: f-1,f-2,f-17
2       apply_reboa: f-3,f-4,f-17
2       apply_reboa: f-5,f-6,f-17
2       apply_reboa: f-7,f-8,f-17
2       apply_reboa: f-9,f-10,f-17
2       apply_reboa: f-11,f-12,f-17
2       apply_tourniquet: f-1,f-2,f-16
2       apply_tourniquet: f-3,f-4,f-16
2       apply_tourniquet: f-5,f-6,f-16
2       apply_tourniquet: f-7,f-8,f-16
2       apply_tourniquet: f-9,f-10,f-16
2       apply_tourniquet: f-11,f-12,f-16
2       start_als: f-1,f-14
2       start_als: f-3,f-14
2       start_als: f-5,f-14
2       start_als: f-7,f-14
2       start_als: f-9,f-14
2       start_als: f-11,f-14
2       administer_thiopental: f-1,f-2,f-13
2       administer_thiopental: f-3,f-4,f-13
2       administer_thiopental: f-5,f-6,f-13
2       administer_thiopental: f-7,f-8,f-13
2       administer_thiopental: f-9,f-10,f-13
2       administer_thiopental: f-11,f-12,f-13
For a total of 36 activations.
```

4. Ketika rule teratas dijalankan, maka mungkin dihasilkan facts baru atau mungkin ada penghapusan facts

```
CLIPS> (run 1)
The clinician 0 administers zero negative blood unit to patient 2
```

```
(defrule administer_zero_negative_blood_unit "Clinician administers zero negative blood unit to a patient"
    (declare (salience 3))
    ?clinician <- (clinician ?clinician_id idle none)
    ?clinician_time <- (clinician_time ?clinician_id ?time)
    ?patient <- (patient ?patient_id zero_negative_blood_unit ?volume)
=>
    (assert (clinician ?clinician_id working ?patient_id))            facts baru
    (assert (clinician_time ?clinician_id (+ ?time 1)))
    (assert (patient ?patient_id zero_negative_blood_unit (+ ?volume 1)))
    (retract ?clinician ?patient ?clinician_time)   ——> penghapusan fakta
    (printout t "The clinician " ?clinician_id " administers zero negative blood unit to patient " ?patient_id crlf)
);
```

Before	After

```
CLIPS> (facts)
f-1     (clinician 0 idle none)
f-2     (clinician_time 0 0)
f-3     (clinician 1 idle none)
f-4     (clinician_time 1 0)
f-5     (clinician 2 idle none)
f-6     (clinician_time 2 0)
f-7     (clinician 3 idle none)
f-8     (clinician_time 3 0)
f-9     (clinician 4 idle none)
f-10    (clinician_time 4 0)
f-11    (clinician 5 idle none)
f-12    (clinician_time 5 0)
f-13    (patient 0 thiopental 0)
f-14    (patient 1 als 0)
f-15    (patient 2 zero_negative_blood_unit 0)
f-16    (patient 3 tourniquet 0)
f-17    (patient 4 REBOA 0)
f-18    (patient 5 toracotomy 0)
For a total of 18 facts.
```

```
CLIPS> (facts)
f-3     (clinician 1 idle none)
f-4     (clinician_time 1 0)
f-5     (clinician 2 idle none)
f-6     (clinician_time 2 0)
f-7     (clinician 3 idle none)
f-8     (clinician_time 3 0)
f-9     (clinician 4 idle none)
f-10    (clinician_time 4 0)
f-11    (clinician 5 idle none)
f-12    (clinician_time 5 0)
f-13    (patient 0 thiopental 0)
f-14    (patient 1 als 0)
f-16    (patient 3 tourniquet 0)
f-17    (patient 4 REBOA 0)
f-18    (patient 5 toracotomy 0)
f-19    (clinician 0 working 2)
f-20    (clinician_time 0 1)
f-21    (patient 2 zero_negative_blood_unit 1)
For a total of 18 facts.
```

Dengan adanya facts baru, maka agenda juga mungkin akan berubah

Before	After

```
CLIPS> (agenda)
3       administer_zero_negative_blood_unit: f-1,f-2,f-15
3       administer_zero_negative_blood_unit: f-3,f-4,f-15
3       administer_zero_negative_blood_unit: f-5,f-6,f-15
3       administer_zero_negative_blood_unit: f-7,f-8,f-15
3       administer_zero_negative_blood_unit: f-9,f-10,f-15
3       administer_zero_negative_blood_unit: f-11,f-12,f-15
2       apply_toracotomy: f-1,f-2,f-18
2       apply_toracotomy: f-3,f-4,f-18
2       apply_toracotomy: f-5,f-6,f-18
2       apply_toracotomy: f-7,f-8,f-18
2       apply_toracotomy: f-9,f-10,f-18
2       apply_toracotomy: f-11,f-12,f-18
2       apply_reboa: f-1,f-2,f-17
2       apply_reboa: f-3,f-4,f-17
2       apply_reboa: f-5,f-6,f-17
2       apply_reboa: f-7,f-8,f-17
2       apply_reboa: f-9,f-10,f-17
2       apply_reboa: f-11,f-12,f-17
2       apply_tourniquet: f-1,f-2,f-16
2       apply_tourniquet: f-3,f-4,f-16
2       apply_tourniquet: f-5,f-6,f-16
2       apply_tourniquet: f-7,f-8,f-16
2       apply_tourniquet: f-9,f-10,f-16
2       apply_tourniquet: f-11,f-12,f-16
2       start_als: f-1,f-14
2       start_als: f-3,f-14
2       start_als: f-5,f-14
2       start_als: f-7,f-14
2       start_als: f-9,f-14
2       start_als: f-11,f-14
2       administer_thiopental: f-1,f-2,f-13
2       administer_thiopental: f-3,f-4,f-13
2       administer_thiopental: f-5,f-6,f-13
2       administer_thiopental: f-7,f-8,f-13
2       administer_thiopental: f-9,f-10,f-13
2       administer_thiopental: f-11,f-12,f-13
For a total of 36 activations.
```

```
CLIPS> (agenda)
4       clinician_administer_zero_negative_blood_unit: f-21,f-19,f-20
3       administer_zero_negative_blood_unit: f-3,f-4,f-21
3       administer_zero_negative_blood_unit: f-5,f-6,f-21
3       administer_zero_negative_blood_unit: f-7,f-8,f-21
3       administer_zero_negative_blood_unit: f-9,f-10,f-21
3       administer_zero_negative_blood_unit: f-11,f-12,f-21
2       apply_toracotomy: f-3,f-4,f-18
2       apply_toracotomy: f-5,f-6,f-18
2       apply_toracotomy: f-7,f-8,f-18
2       apply_toracotomy: f-9,f-10,f-18
2       apply_toracotomy: f-11,f-12,f-18
2       apply_reboa: f-3,f-4,f-17
2       apply_reboa: f-5,f-6,f-17
2       apply_reboa: f-7,f-8,f-17
2       apply_reboa: f-9,f-10,f-17
2       apply_reboa: f-11,f-12,f-17
2       apply_tourniquet: f-3,f-4,f-16
2       apply_tourniquet: f-5,f-6,f-16
2       apply_tourniquet: f-7,f-8,f-16
2       apply_tourniquet: f-9,f-10,f-16
2       apply_tourniquet: f-11,f-12,f-16
2       start_als: f-3,f-14
2       start_als: f-5,f-14
2       start_als: f-7,f-14
2       start_als: f-9,f-14
2       start_als: f-11,f-14
2       administer_thiopental: f-3,f-4,f-13
2       administer_thiopental: f-5,f-6,f-13
2       administer_thiopental: f-7,f-8,f-13
2       administer_thiopental: f-9,f-10,f-13
2       administer_thiopental: f-11,f-12,f-13
For a total of 31 activations.
```

5. Program akan menjalankan rule di agenda satu per satu hingga rule kosong

Run ke	
0	 ``` CLIPS> (agenda) 3 administer_zero_negative_blood_unit: f-1,f-2,f-15 3 administer_zero_negative_blood_unit: f-3,f-4,f-15 3 administer_zero_negative_blood_unit: f-5,f-6,f-15 3 administer_zero_negative_blood_unit: f-7,f-8,f-15 3 administer_zero_negative_blood_unit: f-9,f-10,f-15 3 administer_zero_negative_blood_unit: f-11,f-12,f-15 2 apply_toracotomy: f-1,f-2,f-18 2 apply_toracotomy: f-3,f-4,f-18 2 apply_toracotomy: f-5,f-6,f-18 2 apply_toracotomy: f-7,f-8,f-18 2 apply_toracotomy: f-9,f-10,f-18 2 apply_toracotomy: f-11,f-12,f-18 2 apply_reboa: f-1,f-2,f-17 2 apply_reboa: f-3,f-4,f-17 2 apply_reboa: f-5,f-6,f-17 2 apply_reboa: f-7,f-8,f-17 2 apply_reboa: f-9,f-10,f-17 2 apply_reboa: f-11,f-12,f-17 2 apply_tourniquet: f-1,f-2,f-16 2 apply_tourniquet: f-3,f-4,f-16 2 apply_tourniquet: f-5,f-6,f-16 2 apply_tourniquet: f-7,f-8,f-16 2 apply_tourniquet: f-9,f-10,f-16 2 apply_tourniquet: f-11,f-12,f-16 2 start_als: f-1,f-14 2 start_als: f-3,f-14 2 start_als: f-5,f-14 2 start_als: f-7,f-14 2 start_als: f-9,f-14 2 start_als: f-11,f-14 2 administer_thiopental: f-1,f-2,f-13 2 administer_thiopental: f-3,f-4,f-13 2 administer_thiopental: f-5,f-6,f-13 2 administer_thiopental: f-7,f-8,f-13 2 administer_thiopental: f-9,f-10,f-13 2 administer_thiopental: f-11,f-12,f-13 For a total of 36 activations. ```

| 10 | ```
CLIPS> (run 10)
The clinician 0 administers zero negative blood unit to patient 2
The clinician 0 administers zero negative blood unit to patient 2
The clinician 0 administers zero negative blood unit to patient 2
The clinician 0 decides to administer tranexamic acid and fibrinogen to 2
The clinician 1 administers tranexamic acid to patient 2
The clinician 1 administers fibrinogen to patient 2
The clinician 0 starts massive transfusion protocol on patient 2
Patient 2 is healthy now
The clinician 0 administers thiopental to patient 0
CLIPS> (agenda)
2        apply_toracotomy: f-3,f-4,f-18
2        apply_toracotomy: f-5,f-6,f-18
2        apply_toracotomy: f-7,f-8,f-18
2        apply_toracotomy: f-9,f-10,f-18
2        apply_toracotomy: f-11,f-12,f-18
2        apply_reboa: f-3,f-4,f-17
2        apply_reboa: f-5,f-6,f-17
2        apply_reboa: f-7,f-8,f-17
2        apply_reboa: f-9,f-10,f-17
2        apply_reboa: f-11,f-12,f-17
2        apply_tourniquet: f-3,f-4,f-16
2        apply_tourniquet: f-5,f-6,f-16
2        apply_tourniquet: f-7,f-8,f-16
2        apply_tourniquet: f-9,f-10,f-16
2        apply_tourniquet: f-11,f-12,f-16
2        start_als: f-3,f-14
2        start_als: f-5,f-14
2        start_als: f-7,f-14
2        start_als: f-9,f-14
2        start_als: f-11,f-14
0        check_patient_hypotension: f-35,f-33,f-34
For a total of 21 activations.
``` |
| 20 | ```
CLIPS> (run 10)
The clinician 1 applies toracotomy to patient 5
The clinician 2 applies REBOA to patient 4
The clinician 3 applies tourniquet to patient 3
The clinician 4 starts ALS process on patient 1
The clinician 4 administers adrenaline to patient 1
The clinician 4 administers adrenaline to patient 1
The clinician 4 administers adrenaline to patient 1
The clinician 4 administers adrenaline to patient 1
The clinician 4 administers adrenaline to patient 1
Patient 1 is healthy now
CLIPS> (agenda)
0        check_patient_notification: f-44,f-42,f-43
0        check_patient_notification: f-41,f-39,f-40
0        check_patient_notification: f-38,f-36,f-37
0        check_patient_hypotension: f-35,f-33,f-34
For a total of 4 activations.
``` |
| 30 | ```
CLIPS> (run 10)
Notification: Clinician 3, 15 minutes has passed since the treatment application to patient 3
Notification: Clinician 3, 30 minutes has passed since the treatment application to patient 3
CLIPS> (agenda)
0        notify_clinician: f-61,f-42,f-65
0        check_patient_notification: f-41,f-39,f-40
0        check_patient_notification: f-38,f-36,f-37
0        check_patient_hypotension: f-35,f-33,f-34
For a total of 4 activations.
``` |
| 40 | ```
CLIPS> (run 10)
Notification: Clinician 3, 45 minutes has passed since the treatment application to patient 3
Notification: Clinician 3, 60 minutes has passed since the treatment application to patient 3
Patient 3 is healthy now
Notification: Clinician 2, 15 minutes has passed since the treatment application to patient 4
CLIPS> (agenda)
0        check_patient_notification: f-76,f-39,f-78
0        check_patient_notification: f-38,f-36,f-37
0        check_patient_hypotension: f-35,f-33,f-34
For a total of 3 activations.
``` |
| 50 | ```
CLIPS> (run 10)
Notification: Clinician 2, 30 minutes has passed since the treatment application to patient 4
Notification: Clinician 2, 45 minutes has passed since the treatment application to patient 4
CLIPS> (agenda)
0        notify_clinician: f-86,f-39,f-90
0        check_patient_notification: f-38,f-36,f-37
0        check_patient_hypotension: f-35,f-33,f-34
For a total of 3 activations.
``` |
| 60 | ```
CLIPS> (run 10)
Notification: Clinician 2, 60 minutes has passed since the treatment application to patient 4
Patient 4 is healthy now
Notification: Clinician 1, 15 minutes has passed since the treatment application to patient 5
Notification: Clinician 1, 30 minutes has passed since the treatment application to patient 5
CLIPS> (agenda)
0        check_patient_notification: f-101,f-36,f-103
0        check_patient_hypotension: f-35,f-33,f-34
For a total of 2 activations.
``` |
| 70 | ```
CLIPS> (run 10)
Notification: Clinician 1, 45 minutes has passed since the treatment application to patient 5
Notification: Clinician 1, 60 minutes has passed since the treatment application to patient 5
Patient 5 is healthy now
The clinician 0 checks the tension of the patient 0
The clinician 0 checks the tension of the patient 0
CLIPS> (agenda)
0        check_patient_hypotension: f-35,f-33,f-115
For a total of 1 activation.
``` |

6. Jika agenda sudah kosong, maka program selesai

- **Jelaskan fakta dan rules apa saja yang terdapat pada program yang Anda pilih!**

Facts:

```
CLIPS> (facts)
f-1      (clinician 0 idle none)
f-2      (clinician_time 0 0)
f-3      (clinician 1 idle none)
f-4      (clinician_time 1 0)
f-5      (clinician 2 idle none)
f-6      (clinician_time 2 0)
f-7      (clinician 3 idle none)
f-8      (clinician_time 3 0)
f-9      (clinician 4 idle none)
f-10     (clinician_time 4 0)
f-11     (clinician 5 idle none)
f-12     (clinician_time 5 0)
f-13     (patient 0 thiopental 0)
f-14     (patient 1 als 0)
f-15     (patient 2 zero_negative_blood_unit 0)
f-16     (patient 3 tourniquet 0)
f-17     (patient 4 REBOA 0)
f-18     (patient 5 toracotomy 0)
For a total of 18 facts.
```

Terdapat 18 fakta dengan 3 kategori yakni clinician, clinician_time, dan patient. Clinician merupakan fakta mengenai apa yang sedang dikerjakan oleh dokter. Clinician_time merupakan fakta mengenai waktu saat seorang dokter bekerja. Patient merupakan fakta mengenai keadaan pasien saat ini.

Rules:

```
CLIPS> (rules)
administer_thiopental
check_patient_hypotension
stop_checking_patient_hypotension
start_als
administer_adrenaline
stop_als
administer_tranexamic_acid
administer_fibrinogen
administer_zero_negative_blood_unit
clinician_administer_zero_negative_blood_unit
do_not_administer_zero_negative_blood_unit
administer_MTP
check_missing_drugs
apply_tourniquet
apply_reboa
apply_toracotomy
check_patient_notification
notify_clinician
stop_notification
For a total of 19 defrules.
```

No	Nama	Salience	LHS	RHS
1	Administer_thiopental	2	• Clinician harus idle + none • Clinician_time boleh apa saja • Patient harus thiopental	• Clinician menjadi working + id pasien • Clinician_time jadi +10 • Patient jadi check hypotension • Hapus patient, clicician, dan clinician_time di LHS
2	Check_patient_hypotension	0	Patient harus check_hyopetension Clinician harus working Clinician_time bebas	Clinician_time +10 Hapus clinician_time di LHS
3	Stop_checking_patient_hypotension	1	Patient harus check_hypotension Clinician harus working Clinician_time harus > 59	Clinician menjadi idle + none Clinician_time menjadi 0 Hapus patient di LHS
4	Start_als	2	Clinician harus idle + none Patient harus als dengan volume bebas	Clinician menjadi working Patient menjadi adrenaline Harus clinician dan patient di LHS
5	Administer_adrenaline	0	Patient harus adrenaline Clinician_time bebas Clinician harus working	Clinician_time +3 Hapus clinician_time di LHS
6	Stop_als	1	Patient harus adrenaline Clinician harus working	Clinician jadi idle + none Clinician_time jadi 0

			Clinician_time harus > 14	Hapus patient, clicician, dan clinician_time di LHS
7	Administer_tranexamic_acid	7	Clinician harus idle + none Clinician_time bebas Patient harus tranexamic_acid	Patient menjadi fibrinogen Hapus patient di LHS
8	Administer_fibrinogen	8	Clinician haus idle none Clinician_time bebas Patient harus fibrinogen	Patient menjadi zero_negative_blood_unit Hapus patient di LHS
9	Administer_zero_negative_blood_unit	3	Clinician harus idle none Clinician_time bebas Patient harus zero_negative_blood_unit	Clinician menjadi working Clinician_time menjadi +1 Patient volume menjadi +1 Hapus clinician_time di LHS
10	Clinician_administer_zero_negative_blood_unit	4	Patient harus zero_negative_blood_unit Clinician harus working Clinician time bebas	Clinician time +1 Patient volume +1 Hapus patient dan clinician_time di LHS
11	Do_not_administer_zero_negative_blood_unit	5	Patient harus zero_negative blood_unit dengan volume 3 Clinician harus working Clinician_time bebas	Clinician_time +1 Hapus clinician_time di LHS
12	Administer_MTP	6	Patient harus zero_negative_blood_unit Clinician harus working Clinician_time harus 0	Clinician menjadi idle + none Clinician_time menajdi 0 Hapus patient dan clinician di LHS
13	Check_missing_drugs	7	Clinician harus working Clinician_time harus 5 Patient harus zero_negative_blood_unit dengan volume > 0	Patient menjadi tranexamic_acid Clinician_time jadi 0 Hapus patient dan clinician_time dari LHS
14	Apply_tourniquet	2	Clinician harus idle + none Clinician_time bebas Patient harus tourniquet	Clinician menjadi working Clinician_time +5 Patient menjadi notify_clinician Hapus clinician, patient, clinician_time dari LHS
15	Apply_reboa	2	Clinician harus idle + none Clinician_time bebas Patient harus REBOA	Clinician menjadi working Clinician time +5 Patient menjadi notify_clinician Hapus clinician, patient, dan clinician_time di LHS
16	Apply_toracotomy	2	Clinician harus idle + none Clinician_time bebas	Clinician menjadi working Clinician time +5

			Patient harus toracotomy	Patient menjadi notify_clinician Hapus clinician, patient, dan clinician_time di LHS
17	Check_patient_notification	0	Patient harus notify_clinician Clinician harus working Clinician_time harus >15	Clinician time +5 Hapus clinician_time di LHS
18	Notify_clinician	0	Patient harus notify_clinician Clinician harus working Clinician_time harus >14	Patient jadi notify_clinician Clinician_time jadi 0 Hapus patient dan clinician_time dair LHS
19	Stop_notification	1	Patient harus notify_clinician 5 Clinician harus working Clinician_time bebas	Clinician menjadi idle + none Clinician time menjadi 0 Hapus patient, clinician, dan clinician_time dari LHS

- **CLIPS memiliki beberapa strategi resolusi konflik. Tuliskan dan jelaskan 3 (tiga) strategi resolusi konflik yang dimiliki oleh CLIPS, dan berikan contoh penggunaan resolusi konflik pada program yang anda pilih! (sumber)**