

Laboratorio 3

Construcción de la imagen del contenedor

```
isaackeitor@Josues-MacBook-Air lab-3 % docker build --rm . -t lab2-image && docker run --rm -ti -v "$(pwd)/program":/program lab2-image
[+] Building 1028.8s (25/25) FINISHED                                docker:desktop-linux
=> [internal] load build definition from Dockerfile                  0.0s
[=> => transferring dockerfile: 2.30kB                               0.0s
=> [internal] load metadata for docker.io/library/ubuntu:latest     0.5s
=> [internal] load .dockerignore                                    0.0s
=> => transferring context: 2B                                       0.0s
=> CACHED [ 1/20] FROM docker.io/library/ubuntu:latest@sha256:2e863c44b7 0.0s
=> [ 2/20] RUN apt-get update && apt-get install -y curl bash- 829.2s
=> [internal] load build context                                    0.0s
=> => transferring context: 2.14MB                                    0.0s
=> [ 3/20] RUN add-apt-repository ppa:deadsnakes/ppa                65.2s
=> [ 4/20] RUN apt-get update && apt-get install -y python3-pip    222.5s
=> [ 5/20] COPY antlr-4.13.1-complete.jar /usr/local/lib/antlr-4.13.1-co 0.0s
=> [ 6/20] COPY ./commands/antlr /usr/local/bin/antlr             0.0s
=> [ 7/20] RUN chmod +x /usr/local/bin/antlr                      0.1s
=> [ 8/20] COPY ./commands/antlr /usr/bin/antlr                   0.0s
=> [ 9/20] RUN chmod +x /usr/bin/antlr                             0.1s
=> [10/20] COPY ./commands/grun /usr/local/bin/grun               0.0s
=> [11/20] RUN chmod +x /usr/local/bin/grun                       0.1s
=> [12/20] COPY ./commands/grun /usr/bin/grun                    0.0s
=> [13/20] RUN chmod +x /usr/bin/grun                             0.1s
=> [14/20] COPY python-venv.sh .                                  0.0s
=> [15/20] RUN chmod +x ./python-venv.sh                          0.1s
=> [16/20] RUN ./python-venv.sh                                   0.1s
=> [17/20] COPY requirements.txt .                                0.0s
=> [18/20] RUN pip install -r requirements.txt --break-system-packages 1.0s
=> [19/20] RUN adduser --disabled-password --gecos "" --home 0.1s
=> [20/20] WORKDIR /program                                       0.0s
=> exporting to image                                             1.8s
=> => exporting layers                                             1.8s
=> => writing image sha256:36d2366df960d0480119855af4a74efa52d7770187b0e 0.0s
=> => naming to docker.io/library/lab2-image                      0.0s
```

View build details: [docker-desktop://dashboard/build/desktop-linux/desktop-linux/30mz556bwbvbpn2ihp9ncbiaj](https://dashboard.docker.com/build/desktop-linux/desktop-linux/30mz556bwbvbpn2ihp9ncbiaj)

What's next:

View a summary of image vulnerabilities and recommendations → [docker scout quickview](#)
appuser@a0d2bef66a10:/program\$ ls

Preparación del ambiente

```
appuser@102658a573b4:/program$ ls
ConfRoomScheduler.g4  DriverConfRoom.py  initial-analyzer.py  program_test_confroom.txt  semantic-listener.py
appuser@102658a573b4:/program$ antlr -Dlanguage=Python3 -o gen ConfRoomScheduler.g4
appuser@102658a573b4:/program$ ls
ConfRoomScheduler.g4  DriverConfRoom.py  gen  initial-analyzer.py  program_test_confroom.txt  semantic-listener.py
appuser@102658a573b4:/program$ cd gen
appuser@102658a573b4:/program/gen$ ls
ConfRoomScheduler.interp  ConfRoomScheduler.tokens  ConfRoomSchedulerLexer.interp  ConfRoomSchedulerLexer.py  ConfRoomSchedulerLexer.tokens  ConfRoomSchedulerListener.py  ConfRoomSchedulerParser.py
appuser@102658a573b4:/program/gen$
```

Respuesta 5.2

lab-3 > program > ≡ program0_test_confroom.txt

1 RESERVAR BIBLIOTECA PARA 21/07/2024 DE 10:00 A 08:00 POR JOSUE

```
appuser@f7d1c7cc1573:/program$ python3 semantic-listener.py program0_test_confroom.txt
(prog (stat (reserve RESERVAR BIBLIOTECA1 PARA 21/07/2024 DE 10:00 A 08:00 POR JOSUE) \n))
Traceback (most recent call last):
  File "/program/semantic-listener.py", line 116, in <module>
    main()
  File "/program/semantic-listener.py", line 113, in main
    walker.walk(semantic_checker, tree)
  File "/usr/local/lib/python3.12/dist-packages/antlr4/tree/Tree.py", line 160, in walk
    self.walk(listener, child)
  File "/usr/local/lib/python3.12/dist-packages/antlr4/tree/Tree.py", line 158, in walk
    self.enterRule(listener, t)
  File "/usr/local/lib/python3.12/dist-packages/antlr4/tree/Tree.py", line 178, in enterRule
    ctx.enterRule(listener)
  File "/program/gen/ConfRoomSchedulerParser.py", line 189, in enterRule
    listener.enterReserveStat(self)
  File "/program/semantic-listener.py", line 66, in enterReserveStat
    raise ValueError(f"Error: The start time {start_time} must be before the end time {end_time}")
ValueError: Error: The start time 10:00 must be before the end time 08:00
appuser@f7d1c7cc1573:/program$
```

Actividades

1. Programa que reserve una sala de conferencias

```
lab-3 > program > ≡ program_test_confroom0.txt
1  RESERVAR SALA1 PARA 13/12/2024 DE 07:00 A 08:00
2
```

```
appuser@1a8199e7996d:/program$ antlr -Dlanguage=Python3 -o gen ConfRoomScheduler.g4
appuser@1a8199e7996d:/program$ python3 semantic-listener.py program_test_confroom0.txt
(prog (stat (reserve RESERVAR SALA1 PARA 13/12/2024 DE 07:00 A 08:00) \n))
```

2. Programa que cancele una reserva de sala de conferencias

```
lab-3 > program > ≡ program_test_confroom1.txt
1  CANCELAR SALA1 PARA 13/12/2024 DE 07:00 A 08:00
2
```

```
appuser@1a8199e7996d:/program$ python3 semantic-listener.py program_test_confroom1.txt
(prog (stat (cancel CANCELAR SALA1 PARA 13/12/2024 DE 07:00 A 08:00) \n))
```

3. Prueba con varias reservas y cancelaciones en un mismo programa

```
lab-3 > program > ≡ program_test_confroom2.txt
1  RESERVAR SALA1 PARA 13/12/2024 DE 07:00 A 08:00
2  CANCELAR SALA1 PARA 13/12/2024 DE 07:00 A 08:00
3
4  RESERVAR SALA2 PARA 13/12/2024 DE 07:00 A 08:00
5  CANCELAR SALA2 PARA 13/12/2024 DE 07:00 A 08:00
6
7  RESERVAR SALA3 PARA 13/12/2024 DE 07:00 A 08:00
8  CANCELAR SALA3 PARA 13/12/2024 DE 07:00 A 08:00
9
10 RESERVAR SALA4 PARA 13/12/2024 DE 07:00 A 08:00
11 CANCELAR SALA4 PARA 13/12/2024 DE 07:00 A 08:00
12
```

```
appuser@1a8199e7996d:/program$ python3 semantic-listener.py program_test_confroom2.txt
(prog (stat (reserve RESERVAR SALA1 PARA 13/12/2024 DE 07:00 A 08:00) \n) (stat (cancel CANCELAR SALA1 PARA 13/12/2024 DE 07:00 A 08:00) \n) (stat (reserve RESERVAR SALA2 PARA 13/12/2024 DE 07:00 A 08:00) \n) (stat (cancel CANCELAR SALA2 PARA 13/12/2024 DE 07:00 A 08:00) \n) (stat (reserve RESERVAR SALA3 PARA 13/12/2024 DE 07:00 A 08:00) \n) (stat (cancel CANCELAR SALA3 PARA 13/12/2024 DE 07:00 A 08:00) \n) (stat (reserve RESERVAR SALA4 PARA 13/12/2024 DE 07:00 A 08:00) \n) (stat (cancel CANCELAR SALA4 PARA 13/12/2024 DE 07:00 A 08:00) \n))
appuser@1a8199e7996d:/program$
```

4. Inclusión de nombre del solicitante

```
lab-3 > program > ≡ program_test_confroom3.txt
1   RESERVAR SALA1 PARA 13/12/2024 DE 07:00 A 08:00 POR JOSUE
2   CANCELAR SALA1 PARA 13/12/2024 DE 07:00 A 08:00 POR MARCO
3   |

appuser@08f9b3caafa2e:/program$ python3 semantic-listener.py program_test_confroom3.txt
(prog (stat (reserve RESERVAR SALA1 PARA 13/12/2024 DE 07:00 A 08:00 POR JOSUE) \n) (stat (cancel CANCELAR SALA1 PARA 13/12/2024 DE 07:00 A 08:00 POR MARCO) \n))
```

5. Agregación de manejo de errores para fechas u horas inválidas

```
lab-3 > program > ≡ program_test_confroom4.txt
1   RESERVAR SALA1 PARA 13/12/2024 DE 07:70 A 08:00 POR JOSUE
2   RESERVAR SALA1 PARA 02/11/2024 DE 07:00 A 08:00 POR MARCO

appuser@08f9b3caafa2e:/program$ python3 semantic-listener.py program_test_confroom4.txt
line 2:57 missing NEWLINE at '<EOF>'
(prog (stat (reserve RESERVAR SALA1 PARA 13/12/2024 DE 07:70 A 08:00 POR JOSUE) \n) (stat (reserve RESERVAR SALA1 PARA 02/11/2024 DE 07:00 A 08:00 POR MARCO) <missing NEWLINE>))
Traceback (most recent call last):
  File "/program/semantic-listener.py", line 116, in <module>
    main()
  File "/program/semantic-listener.py", line 113, in main
    walker.walk(semantic_checker, tree)
  File "/usr/local/lib/python3.12/dist-packages/antlr4/tree/Tree.py", line 160, in walk
    self.walk(listener, child)
  File "/usr/local/lib/python3.12/dist-packages/antlr4/tree/Tree.py", line 158, in walk
    self.enterRule(listener, t)
  File "/usr/local/lib/python3.12/dist-packages/antlr4/tree/Tree.py", line 178, in enterRule
    ctx.enterRule(listener)
  File "/program/gen/ConfRoomSchedulerParser.py", line 189, in enterRule
    listener.enterReserveStat(self)
  File "/program/semantic-listener.py", line 59, in enterReserveStat
    raise ValueError(f"Error: Invalid time {start_time} to {end_time}")
ValueError: Error: Invalid time 07:70 to 08:00
```

```
lab-3 > program > ≡ program_test_confroom5.txt
1   RESERVAR SALA1 PARA 40/12/2024 DE 07:00 A 08:00 POR JOSUE
2   RESERVAR SALA1 PARA 02/11/2024 DE 07:00 A 08:00 POR MARCO
3   |

appuser@08f9b3caafa2e:/program$ python3 semantic-listener.py program_test_confroom5.txt
(prog (stat (reserve RESERVAR SALA1 PARA 40/12/2024 DE 07:00 A 08:00 POR JOSUE) \n) (stat (reserve RESERVAR SALA1 PARA 02/11/2024 DE 07:00 A 08:00 POR MARCO) \n))
Traceback (most recent call last):
  File "/program/semantic-listener.py", line 116, in <module>
    main()
  File "/program/semantic-listener.py", line 113, in main
    walker.walk(semantic_checker, tree)
  File "/usr/local/lib/python3.12/dist-packages/antlr4/tree/Tree.py", line 160, in walk
    self.walk(listener, child)
  File "/usr/local/lib/python3.12/dist-packages/antlr4/tree/Tree.py", line 158, in walk
    self.enterRule(listener, t)
  File "/usr/local/lib/python3.12/dist-packages/antlr4/tree/Tree.py", line 178, in enterRule
    ctx.enterRule(listener)
  File "/program/gen/ConfRoomSchedulerParser.py", line 189, in enterRule
    listener.enterReserveStat(self)
  File "/program/semantic-listener.py", line 56, in enterReserveStat
    raise ValueError(f"Error: Invalid date {date}")
ValueError: Error: Invalid date 40/12/2024
```

6. Programa que incluye reservas solapadas y verifica su manejo

```
lab-3 > program > ≡ program_test_confroom6.txt
```

```
1 RESERVAR SALA1 PARA 13/12/2024 DE 07:00 A 09:00 POR JOSUE
2 RESERVAR SALA1 PARA 13/12/2024 DE 08:00 A 10:00 POR MARCO
```

```
appuser@8f9b3caafa2e:/program$ python3 semantic-listener.py program_test_confroom6.txt
line 2:57 missing NEWLINE at '<EOF>'
(prog (stat (reserve RESERVAR SALA1 PARA 13/12/2024 DE 07:00 A 09:00 POR JOSUE) \n) (stat (reserve RESERVAR SALA1 PARA 13/12/2024 DE 08:00 A 10:00 POR MARCO) <missing NEWLINE>))
Traceback (most recent call last):
  File "/program/semantic-listener.py", line 116, in <module>
    main()
  File "/program/semantic-listener.py", line 113, in main
    walker.walk(semantic_checker, tree)
  File "/usr/local/lib/python3.12/dist-packages/antlr4/tree/Tree.py", line 160, in walk
    self.walk(listener, child)
  File "/usr/local/lib/python3.12/dist-packages/antlr4/tree/Tree.py", line 158, in walk
    self.enterRule(listener, t)
  File "/usr/local/lib/python3.12/dist-packages/antlr4/tree/Tree.py", line 178, in enterRule
    ctx.enterRule(listener)
  File "/program/gen/ConfRoomSchedulerParser.py", line 189, in enterRule
    listener.enterReserveStat(self)
  File "/program/semantic-listener.py", line 74, in enterReserveStat
    raise ValueError(f"Error: The reservation {date} {start_time} to {end_time} overlaps with an existing reservation")
ValueError: Error: The reservation 13/12/2024 08:00 to 10:00 overlaps with an existing reservation
```

```
lab-3 > program > ≡ program_test_confroom7.txt
```

```
1 RESERVAR SALA1 PARA 13/12/2024 DE 07:00 A 09:00 POR JOSUE
2 RESERVAR SALA1 PARA 13/12/2024 DE 08:00 A 09:00 POR MARCO
```

```
appuser@8f9b3caafa2e:/program$ python3 semantic-listener.py program_test_confroom7.txt
line 2:57 missing NEWLINE at '<EOF>'
(prog (stat (reserve RESERVAR SALA1 PARA 13/12/2024 DE 07:00 A 09:00 POR JOSUE) \n) (stat (reserve RESERVAR SALA1 PARA 13/12/2024 DE 08:00 A 09:00 POR MARCO) <missing NEWLINE>))
Traceback (most recent call last):
  File "/program/semantic-listener.py", line 116, in <module>
    main()
  File "/program/semantic-listener.py", line 113, in main
    walker.walk(semantic_checker, tree)
  File "/usr/local/lib/python3.12/dist-packages/antlr4/tree/Tree.py", line 160, in walk
    self.walk(listener, child)
  File "/usr/local/lib/python3.12/dist-packages/antlr4/tree/Tree.py", line 158, in walk
    self.enterRule(listener, t)
  File "/usr/local/lib/python3.12/dist-packages/antlr4/tree/Tree.py", line 178, in enterRule
    ctx.enterRule(listener)
  File "/program/gen/ConfRoomSchedulerParser.py", line 189, in enterRule
    listener.enterReserveStat(self)
  File "/program/semantic-listener.py", line 74, in enterReserveStat
    raise ValueError(f"Error: The reservation {date} {start_time} to {end_time} overlaps with an existing reservation")
ValueError: Error: The reservation 13/12/2024 08:00 to 09:00 overlaps with an existing reservation
```

```
lab-3 > program > ≡ program_test_confroom8.txt
```

```
1 RESERVAR SALA1 PARA 13/12/2024 DE 07:00 A 09:00 POR JOSUE
2 RESERVAR SALA1 PARA 13/12/2024 DE 06:00 A 08:00 POR MARCO
```

```
appuser@8f9b3caafa2e:/program$ python3 semantic-listener.py program_test_confroom8.txt
line 2:57 missing NEWLINE at '<EOF>'
(prog (stat (reserve RESERVAR SALA1 PARA 13/12/2024 DE 07:00 A 09:00 POR JOSUE) \n) (stat (reserve RESERVAR SALA1 PARA 13/12/2024 DE 06:00 A 08:00 POR MARCO) <missing NEWLINE>))
Traceback (most recent call last):
  File "/program/semantic-listener.py", line 116, in <module>
    main()
  File "/program/semantic-listener.py", line 113, in main
    walker.walk(semantic_checker, tree)
  File "/usr/local/lib/python3.12/dist-packages/antlr4/tree/Tree.py", line 160, in walk
    self.walk(listener, child)
  File "/usr/local/lib/python3.12/dist-packages/antlr4/tree/Tree.py", line 158, in walk
    self.enterRule(listener, t)
  File "/usr/local/lib/python3.12/dist-packages/antlr4/tree/Tree.py", line 178, in enterRule
    ctx.enterRule(listener)
  File "/program/gen/ConfRoomSchedulerParser.py", line 189, in enterRule
    listener.enterReserveStat(self)
  File "/program/semantic-listener.py", line 74, in enterReserveStat
    raise ValueError(f"Error: The reservation {date} {start_time} to {end_time} overlaps with an existing reservation")
ValueError: Error: The reservation 13/12/2024 06:00 to 08:00 overlaps with an existing reservation
```

```
lab-3 > program > ≡ program_test_confroom9.txt
```

```
1 RESERVAR SALA1 PARA 13/12/2024 DE 05:00 A 07:00 POR JOSUE
2 RESERVAR SALA1 PARA 13/12/2024 DE 06:00 A 08:00 POR MARCO
```

```
appuser@08f9b3caafa2e:/program$ python3 semantic-listener.py program_test_confroom9.txt
line 2:57 missing NEWLINE at '<EOF>'
(prog (stat (reserve RESERVAR SALA1 PARA 13/12/2024 DE 05:00 A 07:00 POR JOSUE) \n) (stat (reserve RESERVAR SALA1 PARA 13/12/2024 DE 06:00 A 08:00 POR MARCO) <missing NEWLINE>))
Traceback (most recent call last):
  File "/program/semantic-listener.py", line 116, in <module>
    main()
  File "/program/semantic-listener.py", line 113, in main
    walker.walk(semantic_checker, tree)
  File "/usr/local/lib/python3.12/dist-packages/antlr4/tree/Tree.py", line 160, in walk
    self.walk(listener, child)
  File "/usr/local/lib/python3.12/dist-packages/antlr4/tree/Tree.py", line 158, in walk
    self.enterRule(listener, t)
  File "/usr/local/lib/python3.12/dist-packages/antlr4/tree/Tree.py", line 178, in enterRule
    ctx.enterRule(listener)
  File "/program/gen/ConfRoomSchedulerParser.py", line 189, in enterRule
    listener.enterReserveStat(self)
  File "/program/semantic-listener.py", line 74, in enterReserveStat
    raise ValueError(f"Error: The reservation {date} {start_time} to {end_time} overlaps with an existing reservation")
ValueError: Error: The reservation 13/12/2024 06:00 to 08:00 overlaps with an existing reservation
```

7. Extensión para soporte de descripción de eventos

```
lab-3 > program > ≡ program_test_confroom10.txt
```

```
1 RESERVAR SALA1 PARA 13/12/2024 DE 07:00 A 09:00 POR JOSUE "Trabajo de graduacion"
2 RESERVAR SALA1 PARA 02/11/2024 DE 06:00 A 08:00 POR MARCO "Revision de tesis"
3
```

```
appuser@08f9b3caafa2e:/program$ python3 semantic-listener.py program_test_confroom10.txt
line 1:70 missing NEWLINE at '<EOF>'
(prog (stat (reserve RESERVAR SALA1 PARA 13/12/2024 DE 07:00 A 09:00 POR JOSUE (description "Trabajo de graduacion")) \n) (stat (reserve RESERVAR SALA1 PARA 02/11/2024 DE 06:00 A 08:00 POR MARCO (description "Revision de tesis")) \n))
appuser@08f9b3caafa2e:/program$
```

8. Agregación de restricción de tiempo de uso máximo

```
lab-3 > program > ≡ program_test_confroom11.txt
```

```
1 RESERVAR SALA1 PARA 13/12/2024 DE 07:00 A 12:00 POR JOSUE "Cumpleaños"
```

```
appuser@08f9b3caafa2e:/program$ python3 semantic-listener.py program_test_confroom11.txt
line 1:70 missing NEWLINE at '<EOF>'
(prog (stat (reserve RESERVAR SALA1 PARA 13/12/2024 DE 07:00 A 12:00 POR JOSUE (description "Cumpleaños")) <missing NEWLINE>))
Traceback (most recent call last):
  File "/program/semantic-listener.py", line 116, in <module>
    main()
  File "/program/semantic-listener.py", line 113, in main
    walker.walk(semantic_checker, tree)
  File "/usr/local/lib/python3.12/dist-packages/antlr4/tree/Tree.py", line 160, in walk
    self.walk(listener, child)
  File "/usr/local/lib/python3.12/dist-packages/antlr4/tree/Tree.py", line 158, in walk
    self.enterRule(listener, t)
  File "/usr/local/lib/python3.12/dist-packages/antlr4/tree/Tree.py", line 178, in enterRule
    ctx.enterRule(listener)
  File "/program/gen/ConfRoomSchedulerParser.py", line 189, in enterRule
    listener.enterReserveStat(self)
  File "/program/semantic-listener.py", line 71, in enterReserveStat
    raise ValueError(f"Error: The reservation duration {duration} exceeds the maximum allowed time of {self.MAX_USAGE_TIME}")
ValueError: Error: The reservation duration 5:00:00 exceeds the maximum allowed time of 2:00:00
```



```
lab-3 > program > ≡ program_test_confroom12.txt
```

```
1 RESERVAR SALA1 PARA 13/12/2024 DE 07:00 A 09:00 POR JOSUE "Cumpleanos"
```

```
appuser@08f9b3caafa2e:/program$ python3 semantic-listener.py program_test_confroom12.txt
```

```
line 1:70 missing NEWLINE at '<EOF>'
```

```
(prog (stat (reserve RESERVAR SALA1 PARA 13/12/2024 DE 07:00 A 09:00 POR JOSUE (description "Cumpleanos"))) <missing NEWLINE>))
```

9. Implementación de funcionalidad para listado de reservas existentes

```
lab-3 > program > ≡ program_test_confroom13.txt
```

```
1 RESERVAR SALA1 PARA 13/12/2024 DE 07:00 A 09:00 POR JOSUE
```

```
2 RESERVAR SALA1 PARA 02/11/2024 DE 06:00 A 08:00 POR MARCO
```

```
3 LISTAR RESERVACIONES
```

```
appuser@08f9b3caafa2e:/program$ python3 semantic-listener.py program_test_confroom13.txt
```

```
line 3:20 missing NEWLINE at '<EOF>'
```

```
(prog (stat (reserve RESERVAR SALA1 PARA 13/12/2024 DE 07:00 A 09:00 POR JOSUE) \n) (stat (reserve RESERVAR SALA1 PARA 02/11/2024 DE 06:00 A 08:00 POR MARCO) \n) (stat (toList LISTAR RESERVACIONES) <missing NEWLINE>))
```

Existing Reservations:

RESERVACION EN SALA1 PARA 13/12/2024 DE 07:00 A 09:00 POR JOSUE

RESERVACION EN SALA1 PARA 02/11/2024 DE 06:00 A 08:00 POR MARCO

10. Programa que utiliza todas las características extendidas del DSL

```
lab-3 > program > ≡ program_test_confroom14.txt
```

```
1 RESERVAR SALA1 PARA 13/12/2024 DE 07:00 A 09:00 POR JOSUE "Cumpleanos"
```

```
2 RESERVAR SALA2 PARA 13/12/2024 DE 07:00 A 09:00 POR MARIO "Firma de contrato"
```

```
3 CANCELAR SALA1 PARA 13/12/2024 DE 07:00 A 09:00 POR JOSUE
```

```
4 ✨STAR RESERVACIONES
```

```
5
```

```
appuser@04ce49482469f:/program$ python3 semantic-listener.py program_test_confroom14.txt
```

```
(prog (stat (reserve RESERVAR SALA1 PARA 13/12/2024 DE 07:00 A 09:00 POR JOSUE (description "Cumpleanos"))) \n) (stat (reserve RESERVAR SALA2 PARA 13/12/2024 DE 07:00 A 09:00 POR MARIO (description "Firma de contrato"))) \n) (stat (cancel CANCELAR SALA1 PARA 13/12/2024 DE 07:00 A 09:00 POR JOSUE) \n) (stat (toList LISTAR RESERVACIONES) \n))
```

Existing Reservations:

RESERVACION EN SALA2 PARA 13/12/2024 DE 07:00 A 09:00 POR MARIO

```
appuser@04ce49482469f:/program$
```

13 y 14 Reprogramación de reservas

```
lab-3 > program > ≡ program_test_confroom15.txt
```

```
1 RESERVAR SALA1 PARA 13/12/2024 DE 07:00 A 09:00 POR JOSUE "Cumpleanos"
2 RESERVAR SALA2 PARA 13/12/2024 DE 07:00 A 09:00 POR MARIO "Firma de contrato"
3 REPROGRAMAR SALA1 13/12/2024 07:00 A 09:00 POR JOSUE PARA 13/12/2024 DE 10:00 A 12:00 "Cambio de horario"
4 LISTAR RESERVACIONES
5
```

```
appuser@e511e2e79bdc:/program$ python3 semantic-listener.py program_test_confroom15.txt
(prog (stat (reserve RESERVAR SALA1 PARA 13/12/2024 DE 07:00 A 09:00 POR JOSUE (description "Cumpleanos")) \n) (stat (reserve RESERVAR SALA2 PARA 13/12/2024 DE 07:00 A 09:00 POR MARIO (description "Firma de contrato")) \n) (stat (reschedule REPROGRAMAR SALA1 13/12/2024 07:00 A 09:00 POR JOSUE PARA 13/12/2024 DE 10:00 A 12:00 (description "Cambio de horario")) \n) (stat (tolist LISTAR RESERVACIONES) \n))
```

Existing Reservations:

RESERVACION EN SALA1 PARA 13/12/2024 DE 10:00 A 12:00 POR JOSUE

RESERVACION EN SALA2 PARA 13/12/2024 DE 07:00 A 09:00 POR MARIO

```
appuser@e511e2e79bdc:/program$
```