▷Run| DSelect
INSERT INTO EMPLOYEE(fname, minit, lname, ssn, bdate, address, sex, salary, super_ssn, dno)
VALUES
['jehad', 'M', 'hamad', '12332121', '2005-01-06', NULL, 'M', 45000, NULL, 1]]

Q	* fname varchar(20 ♥ 🍸	minit varchar(1◆▽	* Iname varchar(25 ♥ ▽	* ssn varchar(9 ♥ ▽	bdate date ♦ ▽	address varchar(50)	sex varchar(1 ▼ ▽	* salary int ◆∀	¹¹ super_ssi varchar(9) \$ ₹	th dno int ≑ ∇
>	Jehad	М	Hamad	12332121	2005-01-06	(NULL)	М	45000	(NULL)	
>	John	В	Smith	123456789	1965-01-09	731 Fondren, Houston, TX	М	30000	333445555	
>	Franklin		Wong	333445555	1955-12-08	638 Voss, Houston, TX	М	40000	888665555	
>	Joyce	А	English	453453453	1972-07-31	5631 Rice, Houston, TX		25000	333445555	
>	Ramesh		Narayan	666884444	1962-09-15	975 Fire Oak, Humble, TX	М	38000	333445555	
>	James		Borg	888665555	1937-11-10	450 Stone, Houston, TX	М	55000	(NULL)	
>	Jennifer		Wallace	987654321	1941-06-20	291 Berry, Bellaire, TX		43000	888665555	
>	Ahmad		Jabbar	987987987	1969-03-29	980 Dallas, Houston, TX	М	25000	987654321	
>	Alicia		Zelaya	999887777	1968-01-19	3321 Castle, Spring, TX		25000	987654321	

```
DELIMITER //
CREATE TRIGGER bdate before insert
BEFORE INSERT ON DEPENDENT
FOR EACH ROW
BEGIN
   IF NEW.bdate > CURDATE() THEN
       SIGNAL SQLSTATE '45000'
       SET MESSAGE_TEXT = 'Invalid birthdate! Cannot be in the future.';
   END IF;
END
DELIMITER ;
DELIMITER //
CREATE TRIGGER bdate_before_update
BEFORE Update ON DEPENDENT
FOR EACH ROW
BEGIN
   IF NEW.bdate > CURDATE() THEN
       SIGNAL SQLSTATE '45000'
        SET MESSAGE_TEXT = 'Invalid birthdate! Cannot be in the future.';
   END IF;
END
DELIMITER ; 20ms
UPDATE `DEPENDENT` Invalid birthdate! Cannot be in the future.
SET bdate = '2025-12-12'
WHERE essn = 123456789; 17ms
INSERT INTO DEPENDENT(essn, dependent_name, sex, bdate, relationship) Invalid birthdate Insertion! Cannot be in the future.
('333445555', 'Sophia', 'F', '2025-12-12', 'Daughter'); 6ms
```

3)

```
DELIMITER //

PRUN DELIMITER //

PRUN Delect

CREATE TRIGGER update_salary_trigger

AFTER UPDATE ON WORKS_ON

FOR EACH ROW

BEGIN

-- Declare a local variable

SET @total_hours = (

SELECT SUM(phours)

FROM WORKS_ON

WHERE essn = NEW.essn
);

-- If total hours exceed 50, increase the salary

IF @total_hours > 50 THEN

UPDATE EMPLOYEE

SET salary = salary * 1.10 -- Increase salary by 10%

WHERE ssn = NEW.essn;

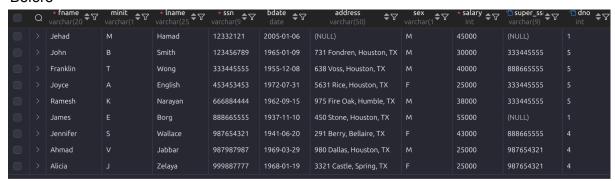
END IF;

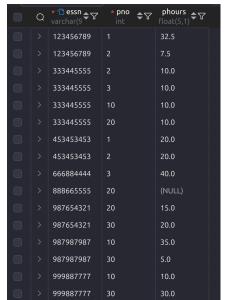
END 42ms

>Run

DELIMITER ;
```

Before





After

DRun DSelect		
UPDATE `WORKS_ON`		
SET phours = 30		
WHERE essn = '333445555' AND pno = 20;	AffectedRows: 1	18ms

WH	EF	E ess	n = '3	334455	55' AN	ID pno	= 20; A	ffecte	dRows:	1 18n	าร
	Q	* fname varchar(20	√ minit varchar(1 🗢 🗸	* Iname varchar(25 ♦ 🌱	* ssn varchar(9 ◆ ▽	bdate date \$ ₹	address varchar(50) ◆	▽ sex	* salary ∮⊽	1 super_ss r varchar(9) ◆ ▼	⁴dno int \$√
		Jehad	М	Hamad	12332121	2005-01-06	(NULL)	М	45000	(NULL)	1
		John	В	Smith	123456789	1965-01-09	731 Fondren, Houston,	тх м	30000	333445555	
		Franklin		Wong	333445555	1955-12-08	638 Voss, Houston, TX	М	44000	888665555	
		Joyce		English	453453453	1972-07-31	5631 Rice, Houston, TX		25000	333445555	5
		Ramesh		Narayan	666884444	1962-09-15	975 Fire Oak, Humble, T	х м	38000	333445555	5
		James		Borg	888665555	1937-11-10	450 Stone, Houston, TX	М	55000	(NULL)	1
		Jennifer		Wallace	987654321	1941-06-20	291 Berry, Bellaire, TX		43000	888665555	
		Ahmad		Jabbar	987987987	1969-03-29	980 Dallas, Houston, TX	М	25000	987654321	4
	>	Alicia	J	Zelaya	999887777⊕	1968-01-19	3321 Castle, Spring, TX	F	25000	987654321	4
			2244			,		10			
	>	3	3344	5555	4	2		10	0.0		
	>	3	3344!	5555	3	3		10	0.0		
	>	3	3344	5555	1	10		10	0.0		
	>	3	3344!	5555	2	20		30	0.0		

4)

```
CREATE TRIGGER insert_salary_trigger

AFTER INSERT ON WORKS_ON

FOR EACH ROW

BEGIN

-- Declare a local variable

SET @total_hours = (

    SELECT SUM(phours))
    FROM WORKS_ON
    WHERE essn = NEW.essn
);

-- If total hours exceed 50, increase the salary

IF @total_hours > 50 THEN

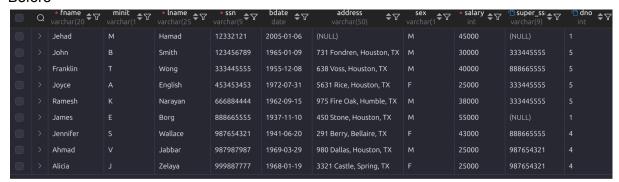
    UPDATE EMPLOYEE

    SET salary = salary * 1.10 -- Increase salary by 10%
    WHERE ssn = NEW.essn;

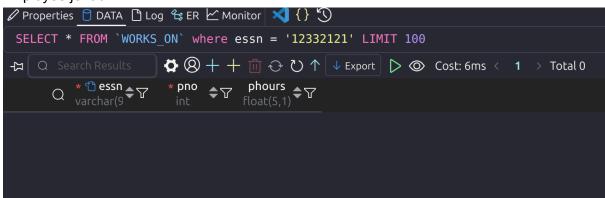
END IF;

END 27ms
```

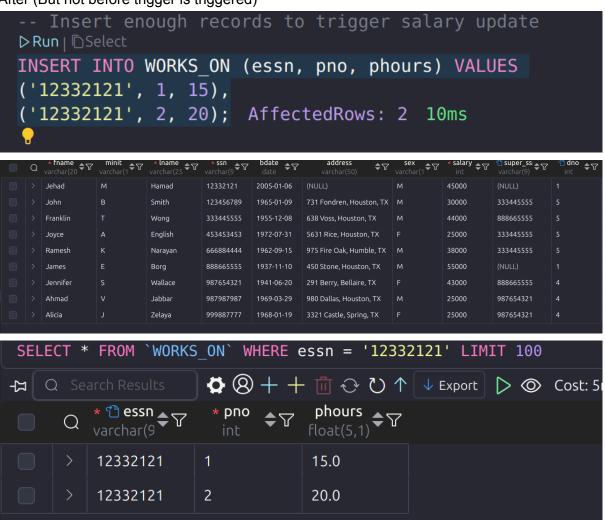
Before



Employee jehad



After (But not before trigger is triggered)



Nothing should have changed as i don't have more than 50 hours

After (trigger is triggered)

