conteneur(NumType,NumModele#,NumTaille#)

typeconteneur(NumType,libelle)

Taille(NumTaille,TailleLong,TailleLarge,TailleHaut)

Leconteneur(numid,emplacement,numcli,DateArrivee)

Quai(numquai)

Allee(numallee, numquai#)

Emplacement(numemplacement,numallee#,numquai# numallee#)

Position(numposition, numemplacement#, numallee#,numquai#,numetage ,numcont#)

NumPosition = NumQuai & NumAllee & NumEmplacement & [Etage(0 ou 1 ou 2 ou 3)]

A chaque fois qu’on met un conteneneur udapte dans une position y’a un trigger before ou after pour check la position.

Pour TAI ( Trigger After Insert)  : Conteneur a un NumPosition

DELIMITER //

create TRIGGER majnumcont

AFTER INSERT on leconteneur

for EACH ROW

BEGIN

UPDATE position set numcont = new.numid

where numposition = new.emplacement;

END;

//

DELIMITER ;

Pour TAU ( Trigger After Update)  : Le conteneur a un Numposition

DELIMITER //

create TRIGGER tau\_position

AFTER UPDATE on position

for EACH ROW

BEGIN

IF old.numcont <> new.numcont THEN

UPDATE position set numcont = new.numcont

where numposition = new.numemplacement;

end IF;

END;

//

DELIMITER ;Pour TAD ( Trigger After Delete ) : Faire un update de position en supprimant le NumConteneur dans position

DELIMITER //

create TRIGGER tad\_leconteneur

AFTER DELETE on leconteneur

for EACH ROW

BEGIN

UPDATE position set numcont = null

where numposition = old.emplacement;

END;

//

DELIMITER ;

CREATE TABLE `allee` (

`numallee` char(3) NOT NULL,

`numquai` char(2) NOT NULL

);

ALTER TABLE `allee`

ADD PRIMARY KEY (`numallee`,`numquai`),

ADD KEY `fk\_Allee\_Quai` (`numquai`);

CREATE TABLE `contener` (

`contcode` char(2) NOT NULL,

`conttype` int(11) NOT NULL,

`conttaille` int(11) NOT NULL

);

ALTER TABLE `contener`

ADD PRIMARY KEY (`contcode`),

ADD KEY `fk\_contener\_type` (`conttype`),

ADD KEY `fk\_contener\_taille` (`conttaille`);

INSERT INTO `contener` (`contcode`, `conttype`, `conttaille`) VALUES

('11', 1, 1),

('21', 2, 1),

('31', 3, 1),

('41', 4, 1),

('51', 5, 1),

('12', 1, 2),

('22', 2, 2),

('32', 3, 2),

('42', 4, 2),

('52', 5, 2),

('13', 1, 3),

('23', 2, 3),

('33', 3, 3);

CREATE TABLE `emplacement` (

`numemplacement` char(3) NOT NULL,

`numallee` char(3) NOT NULL,

`numquai` char(2) NOT NULL

);

ALTER TABLE `emplacement`

ADD PRIMARY KEY (`numemplacement`,`numallee`,`numquai`),

ADD KEY `fk\_Emplacement\_Allee` (`numallee`,`numquai`);

CREATE TABLE `leconteneur` (

`numid` char(11) NOT NULL,

`type` char(2) NOT NULL,

`emplacement` char(10) NOT NULL,

`numcli` varchar(25) DEFAULT NULL,

`date\_arrivee` date NOT NULL

) ;

ALTER TABLE `leconteneur`

ADD PRIMARY KEY (`numid`),

ADD KEY `fk\_Leconteneur\_Position` (`emplacement`);

CREATE TABLE `modele` (

`typecode` int(11) NOT NULL,

`typelibel` varchar(15) NOT NULL,

`phototype` varchar(15) DEFAULT NULL

) ;

ALTER TABLE `modele`

ADD PRIMARY KEY (`typecode`);

INSERT INTO `modele` (`typecode`, `typelibel`, `phototype`) VALUES

(1, 'Classique', 'classique.png'),

(2, 'Reefer', 'reefer.png'),

(3, 'Tank', 'tank.png'),

(4, 'Open Top', 'opentop.png'),

(5, 'Flat-Rack', 'flatrack.png');

CREATE TABLE `position` (

`numposition` char(9) NOT NULL,

`numemplacement` char(3) NOT NULL,

`numallee` char(3) NOT NULL,

`numquai` char(2) NOT NULL,

`numetage` char(1) NOT NULL,

`numcont` char(11) DEFAULT NULL

);

ALTER TABLE `position`

ADD PRIMARY KEY (`numposition`),

ADD KEY `fk\_Position\_Emplacement` (`numemplacement`,`numallee`,`numquai`),

ADD KEY `fk\_Position\_Leconteneur` (`numcont`);

CREATE TABLE `quai` (

`numquai` char(2) NOT NULL

);

ALTER TABLE `quai`

ADD PRIMARY KEY (`numquai`);

CREATE TABLE `taille` (

`taillcode` int(11) NOT NULL,

`taillong` int(2) NOT NULL,

`taillarg` int(2) NOT NULL,

`tailhaut` int(2) NOT NULL

);

ALTER TABLE `taille`

ADD PRIMARY KEY (`taillcode`);

INSERT INTO `taille` (`taillcode`, `taillong`, `taillarg`, `tailhaut`) VALUES

(1, 20, 8, 8),

(2, 40, 8, 8),

(3, 40, 8, 9);