



Database Midterm Assignment report

12171506 Shin Chang Ho

Table : vehicle list

vehicle list
vehicle id INT
registration VARCHAR(45)
manufacturer VARCHAR(45)
model VARCHAR(45)
color VARCHAR(45)
current odometer INT
passanger capacity INT
Indexes

vehicle id : vehicle's id

registration : vehicle's registration number

manufacturer : vehicle's manufacturer

color : vehicle's color

passanger capacity : the number of passengers on board

Table : vehicle maintenance

Vehicle maintenance
vehicle id INT
action type VARCHAR(45)
odometer INT
finalcost INT
description TEXT
start date DATE
end date DATE
Indexes

vehicle id : vehicle's id

action type : type of maintenance or reappear

odometer : vehicle's odometer

finalcost : total costs

description : maintenance(repair) details

start date : when maintenance(repair) start

end date : when maintenance(repair) end

Table : official

Official	
official id	INT
country	VARCHAR(45)
language	VARCHAR(45)
role	VARCHAR(45)
city	VARCHAR(45)
name	VARCHAR(45)
Indexes	

official id : official's id
 coutry : official's country
 language ; official's language
 role : official's role
 name : official's name

Table : driver

Driver	
driver id	INT
name	VARCHAR(45)
license	VARCHAR(45)
security clearance level	VARCHAR(45)
language	VARCHAR(45)
FATL level	INT
FATL date	DATE
STLVLT level	INT
STLVLT date	DATE
STLVLT Certifying Authority	VARCHAR(45)
Indexes	

driver id : driver's id
 name : driver's name
 license : driver's license
 security clearance level : driver's security clearance level
 language : driver's language
 FATL level : First Aid Training Licence level, The driver may not be qualified
 FATL date : when pass FATL test
 STLVLT level : security training licence for the VIP transport level, The driver may not be qualified
 STLVLT date : when pass STLVE test
 STLVLT Certifying Authority : institution that who can give qualification

Table : booking service

booking service
booking id INT
booking reference number INT
pickup location INT
dropoff location INT
driver id INT
official id INT
start time DATETIME
end time DATETIME
start odometer INT
end odometer INT
vehicle id INT
Indexes

booking id : booking service's id

booking reference number : the number of booking reference

pickup location : a place to ride

dropoff location : a place to get off

driver id : driver's id

official id : official's id

start time : departure time

end time : time of arrival

start odometer : odometer before driving

end odometer : odometer after driving

vehicle id : vehicle's id

Table - Location

Location
location id INT
address VARCHAR(45)
name VARCHAR(45)
type VARCHAR(45)
Indexes

location id : location's id

address : location's address

name : location's name

type : location's type (ex. park, hotel, station, ...)

```
CREATE TABLE `vehicle list` (
  `vehicle id` int(11) NOT NULL,
  `registration` varchar(45) DEFAULT NULL,
  `manufacturer` varchar(45) DEFAULT NULL,
  `model` varchar(45) DEFAULT NULL,
  `color` varchar(45) DEFAULT NULL,
  `current odometer` int(11) DEFAULT NULL,
  `passanger capacity` int(11) DEFAULT NULL,
  PRIMARY KEY (`vehicle id`)
) ENGINE=InnoDB DEFAULT CHARSET=utf8
```

this is vehicle list table's code.

primary key is [vehicle id]

	vehicle id	registration	manufacturer	model	color	current odometer	passanger capacity
▶	1000	2001ABC	Volvo	XC90 SE	Silver	4350	4
	1001	2006AFD	Kia	K7	Black	2195	4
	1002	2021AHR	Telsa	2020 F	White	590	4
	1003	2020DXF	Ford	Transit	Silver	974	2
•	NULL	NULL	NULL	NULL	NULL	NULL	NULL

```
CREATE TABLE `vehicle maintenance` (
  `vehicle id` int(11) NOT NULL,
  `action type` varchar(45) NOT NULL,
  `odometer` int(11) NOT NULL,
  `finalcost` int(11) NOT NULL,
  `description` text NOT NULL,
  `start date` date NOT NULL,
  `end date` date NOT NULL,
  PRIMARY KEY (`vehicle id`),
  CONSTRAINT `fk_Vehicle maintenance_vehicle list1` FOREIGN KEY (`vehicle id`) REFERENCES `vehicle list` (`vehicle id`) ON DELETE NO ACTION
) ENGINE=InnoDB DEFAULT CHARSET=utf8
```

this is vehicle maintenance table's code

primary key is [vehicle id]

foreign key is [vehicle id] in [vehicle list table - vehicle id]

	vehicle id	action type	odometer	finalcost	description	start date	end date
▶	1000	M	4350	300	Tire replacement	2022-10-15	2022-10-15
	1001	R	2195	1000	Engine replacement	2022-10-17	2022-10-18

```
CREATE TABLE `driver` (
  `driver id` int(11) NOT NULL,
  `name` varchar(45) NOT NULL,
  `license` varchar(45) NOT NULL,
  `security clearnace level` varchar(45) NOT NULL,
  `language` varchar(45) NOT NULL,
  `FATL level` int(11) DEFAULT NULL,
  `FATL date` date DEFAULT NULL,
  `STLVT level` int(11) DEFAULT NULL,
  `STLVT date` date DEFAULT NULL,
  `STLVT Certifying Authority` varchar(45) DEFAULT NULL,
  PRIMARY KEY (`driver id`)
) ENGINE=InnoDB DEFAULT CHARSET=utf8
```

this is driver table's code

primary key is [driver id]

	driver id	name	license	security clearnace level	language	FATL level	FATL date	STLVT level	STLVT date	STLVT Certifying Authority
▶	1	Andrew	123456789000000000	1	English	NULL	NULL	NULL	NULL	NULL
	2	David	1234567890000000001	2	Japanese	2	2015-10-10	NULL	NULL	NULL
	3	Enoch	1234567890000000002	3	German	9	2014-09-15	4	2016-11-23	ADT Inc.
	4	George	1234567890000000003	4	Korean	NULL	NULL	2	2018-04-20	ADT Inc.
•	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

```
CREATE TABLE `official` (
  `official id` int(11) NOT NULL,
  `country` varchar(45) DEFAULT NULL,
  `language` varchar(45) DEFAULT NULL,
```

```

`role` varchar(45) DEFAULT NULL,
`city` varchar(45) DEFAULT NULL,
`name` varchar(45) DEFAULT NULL,
PRIMARY KEY (`official id`)
) ENGINE=InnoDB DEFAULT CHARSET=utf8

```

this is vehicle official table's code

primary key is [official id]

	official id	country	language	role	city	name
▶	1	KR	ko	coach	23010520	'Kim Min Ho'
	2	US	en	judge	23060500	'Charles Otto Puth Jr.
	3	DE	de	coach	23070580	Hermann Karl Hesse
	4	JP	ja	psysician	23060540	Ken Shimizu
	5	IN	hi	psysician	23060670	'Mohammed Aamir Hussain Khan

```

CREATE TABLE `booking service` (
  `booking id` int(11) NOT NULL,
  `booking reference number` int(11) NOT NULL,
  `pickup location` int(11) NOT NULL,
  `dropoff location` int(11) NOT NULL,
  `driver id` int(11) NOT NULL,
  `official id` int(11) NOT NULL,
  `start time` datetime NOT NULL,
  `end time` datetime NOT NULL,
  `start odometer` int(11) NOT NULL,
  `end odometer` int(11) NOT NULL,
  `vehicle id` int(11) NOT NULL,
  PRIMARY KEY (`booking id`),
  KEY `fk_booking_location_idx` (`pickup location`),
  KEY `fk_booking_location1_idx` (`dropoff location`),
  KEY `fk_booking_driver1_idx` (`driver id`),
  KEY `fk_booking_Official1_idx` (`official id`),
  KEY `fk_booking_Vehicle_info1_idx` (`vehicle id`),
  CONSTRAINT `fk_booking_Official1` FOREIGN KEY (`official id`) REFERENCES `official` (`official id`) ON DELETE NO ACTION ON UPDATE NO ACTION,
  CONSTRAINT `fk_booking_Vehicle_info1` FOREIGN KEY (`vehicle id`) REFERENCES `vehicle list` (`vehicle id`) ON DELETE NO ACTION ON UPDATE NO ACTION,
  CONSTRAINT `fk_booking_driver1` FOREIGN KEY (`driver id`) REFERENCES `driver` (`driver id`) ON DELETE NO ACTION ON UPDATE NO ACTION,
  CONSTRAINT `fk_booking_location` FOREIGN KEY (`pickup location`) REFERENCES `location` (`location id`) ON DELETE NO ACTION ON UPDATE NO ACTION,
  CONSTRAINT `fk_booking_location1` FOREIGN KEY (`dropoff location`) REFERENCES `location` (`location id`) ON DELETE NO ACTION ON UPDATE NO ACTION,
) ENGINE=InnoDB DEFAULT CHARSET=utf8

```

this is vehicle booking service table's code

primary key is [booking id]

1 foreign key is [official id] in [official table - official id]

2 foreign key is [driver id] in [driver table - driver id]

3 foreign key is [vehicle id] in [vehicle list table - vehicle id]

4 foreign key is [pickup location] in [location table location id]

5 foreign key is [dropoff location] in [location table - location id]

	booking id	booking reference number	pickup location	dropoff location	driver id	official id	start time	end time	start odometer	end odometer	vehicle id
▶	1	1	1	2	1	2	2022-10-01 12:00:00	2022-10-01 13:15:00	0	78	1000
	2	2	3	4	2	4	2022-10-03 11:00:00	2022-10-03 15:00:00	0	95	1001
	3	3	5	6	3	3	2022-10-05 14:00:00	2022-10-05 15:10:00	0	49	1002
*	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

```

CREATE TABLE `location` (
  `location id` int(11) NOT NULL,
  `address` text NOT NULL,
  `name` varchar(45) NOT NULL,
  `type` varchar(45) NOT NULL,

```

```
PRIMARY KEY (`location id`)
) ENGINE=InnoDB DEFAULT CHARSET=utf8
```

this is vehicle location table's code

primary key is [location id]

	location id	address	name	type
▶	1	123, Central-ro, Yeonsu-gu, Incheon, Republic of Korea	Incheon Central Park	Park
	2	43, Songnae-daero, Bucheon-si, Gyeonggi-do, Republic of Korea	Song Nae Station	Station
	3	269, Jemullyang-ro, Jung-gu, Incheon, Republic of Korea	Incheon Station	Station
	4	175, Biryu-daero, Yeonsu-gu, Incheon, Republic of Korea	Song Do Station	Station
	5	15, Gwangjang-ro, Bupyeong-gu, Incheon, Republic of Korea	Bupyeong Station	Station
	6	'271, Gonghang-ro, Jung-gu, Incheon, Republic of Korea	Incheon International Airport	Airport
•	NULL	NULL	NULL	NULL

