

Database

1. การติดตั้งและการตั้งค่า MySQL Server (.pdf)

1.1. คำสั่งติดตั้ง MySQLServer

```
sudo apt update
```

```
sudo apt install mysql-server
```

```
sudo systemctl status mysql
```

1.2. การตั้งค่าenvให้กับ docker เพื่อกำหนด my.cnf และตำแหน่งที่เก็บข้อมูลบนhost

```
Dockerfile x docker-compose.yml
Dockerfile > ...
1 FROM mysql
2 COPY ./scripts ./scripts
3 ENV MYSQL_ROOT_PASSWORD=Newnismo_2001
4 EXPOSE 3306
```

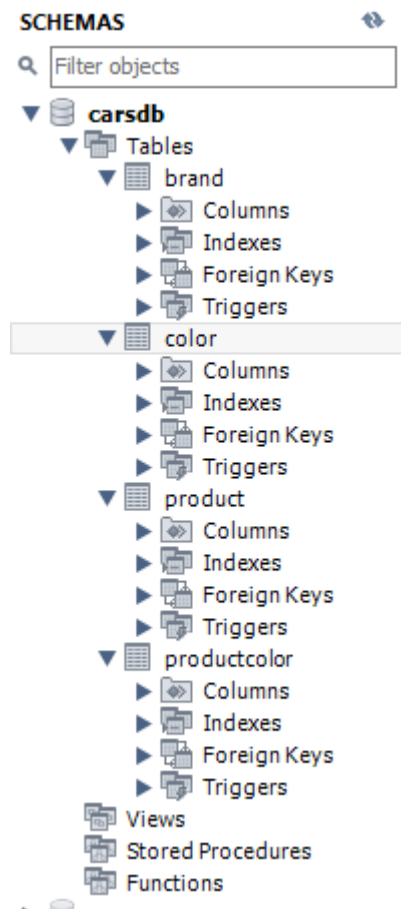
```
Dockerfile x docker-compose.yml x
docker-compose.yml
1 version: '3'
2 services:
3   database:
4     container_name: database
5     build: .
6     image: database
7     environment:
8       MYSQL_ROOT_USER: root
9       MYSQL_ROOT_PASSWORD: Newnismo_2001
10      MYSQL_DATABASE: carsdb
11     volumes:
12       - "./scripts/carsdb.sql:/docker-entrypoint-initdb.d/carsdb.sql"
13       - "./scripts/user_grant.sql:/docker-entrypoint-initdb.d/user_grant.sql"
14     ports:
15       - "3306:3306"
16
17 networks:
18   default:
19     external:
20       name: allnetwork
```

```
projectcars@projectcars:~/database/INT221_Integrated_Project_Database$ ls -la
total 28
drwxrwxr-x 5 projectcars projectcars 4096 May  8 12:42 .
drwxrwxr-x 3 projectcars projectcars 4096 May  8 12:36 ..
drwxrwxr-x 8 projectcars projectcars 4096 May  8 12:42 .git
-rw-rw-r-- 1 projectcars projectcars  91 May  8 12:42 Dockerfile
-rw-rw-r-- 1 projectcars projectcars  429 May  8 12:42 docker-compose.yml
drwxrwxr-x 2 projectcars projectcars 4096 May  8 12:36 scripts
drwxrwxr-x 2 projectcars projectcars 4096 May  8 12:36 'scripts file'
projectcars@projectcars:~/database/INT221_Integrated_Project_Database$
```

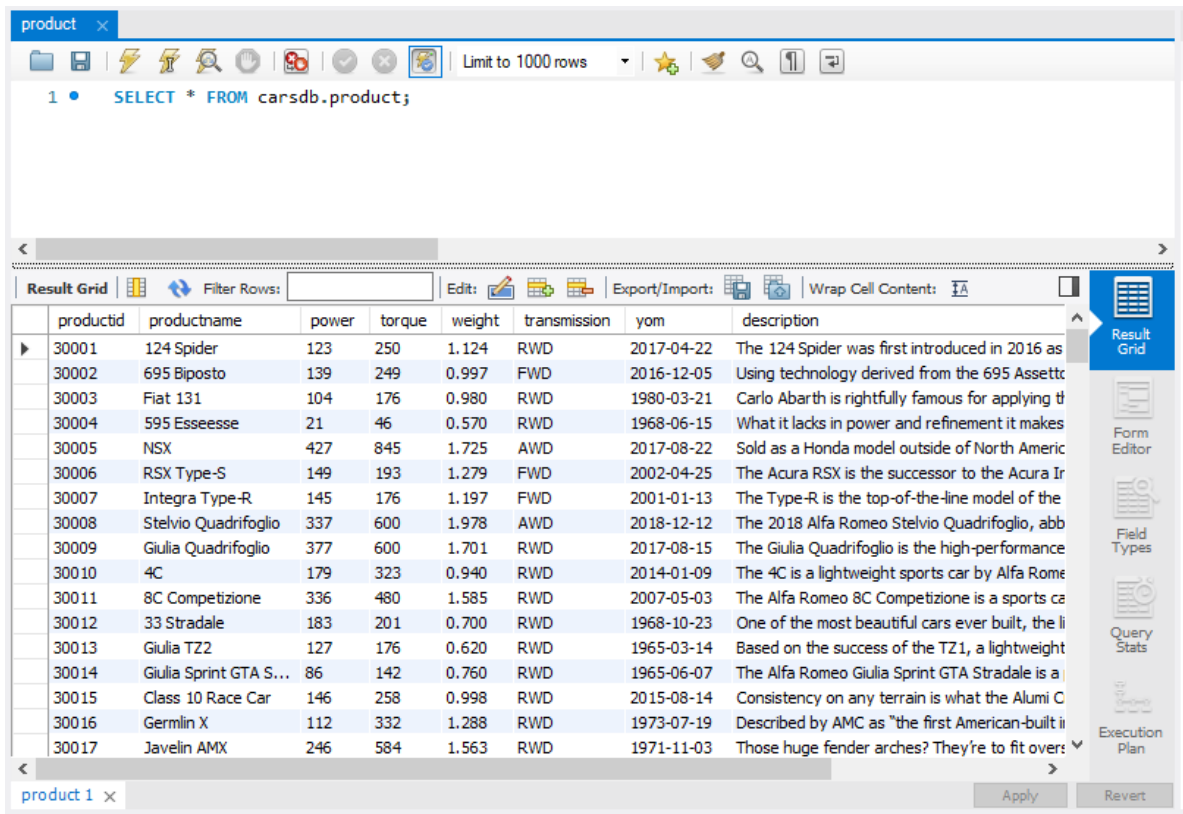
1.3. หน้าจอสถานะของ Container ของ MySQLServer

```
d35d0379ba9c  database  "docker-entrypoint.s..."  41 hours ago  Up 41 hours  0.0.0.0:3306->3306/tcp, :::3306->3306/tcp, 33060/tcp  database
```

1.4. หน้าจอการเชื่อมต่อกับ MySQLServer แสดงชื่อฐานข้อมูลทั้งหมด



1.5. หน้าจอการใช้คำสั่ง SELECT เพื่อดูข้อมูลในตารางหลักของระบบ เช่น ตาราง customer

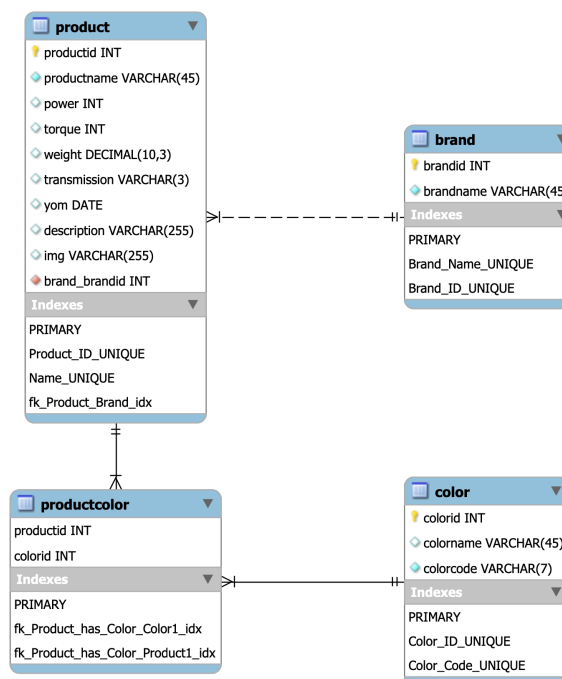


The screenshot shows a database application window titled 'product'. The query bar contains the SQL statement: `SELECT * FROM carsdb.product;`. Below the query bar, a 'Result Grid' displays the data. The grid has columns: productid, productname, power, torque, weight, transmission, yom, and description. The data is listed in rows, with productid ranging from 30001 to 30017. The application interface includes a toolbar with icons for file operations, a 'Limit to 1000 rows' dropdown, and a sidebar with options like 'Form Editor', 'Field Types', 'Query Stats', and 'Execution Plan'.

productid	productname	power	torque	weight	transmission	yom	description
30001	124 Spider	123	250	1.124	RWD	2017-04-22	The 124 Spider was first introduced in 2016 as
30002	695 Biposto	139	249	0.997	FWD	2016-12-05	Using technology derived from the 695 Assetto
30003	Fiat 131	104	176	0.980	RWD	1980-03-21	Carlo Abarth is rightfully famous for applying th
30004	595 Esseeesse	21	46	0.570	RWD	1968-06-15	What it lacks in power and refinement it makes
30005	NSX	427	845	1.725	AWD	2017-08-22	Sold as a Honda model outside of North Americ
30006	RSX Type-S	149	193	1.279	FWD	2002-04-25	The Acura RSX is the successor to the Acura Ir
30007	Integra Type-R	145	176	1.197	FWD	2001-01-13	The Type-R is the top-of-the-line model of the
30008	Stelvio Quadrifoglio	337	600	1.978	AWD	2018-12-12	The 2018 Alfa Romeo Stelvio Quadrifoglio, abb
30009	Giulia Quadrifoglio	377	600	1.701	RWD	2017-08-15	The Giulia Quadrifoglio is the high-performance
30010	4C	179	323	0.940	RWD	2014-01-09	The 4C is a lightweight sports car by Alfa Rome
30011	8C Competizione	336	480	1.585	RWD	2007-05-03	The Alfa Romeo 8C Competizione is a sports ca
30012	33 Stradale	183	201	0.700	RWD	1968-10-23	One of the most beautiful cars ever built, the li
30013	Giulia TZ2	127	176	0.620	RWD	1965-03-14	Based on the success of the TZ1, a lightweight
30014	Giulia Sprint GTA S...	86	142	0.760	RWD	1965-06-07	The Alfa Romeo Giulia Sprint GTA Stradale is a
30015	Class 10 Race Car	146	258	0.998	RWD	2015-08-14	Consistency on any terrain is what the Alumi C
30016	Germlin X	112	332	1.288	RWD	1973-07-19	Described by AMC as "the first American-built i
30017	Javelin AMX	246	584	1.563	RWD	1971-11-03	Those huge fender arches? They're to fit over

2. การออกแบบและการใช้งานฐานข้อมูล (.pdf)

2.1. แผนภาพ Entity Relationship Diagram [ระบุ Data Type ของ MySQL]



2.2. Data Dictionary

Column	Data_type	Constaint	Description
brandid	INT	PK	รหัสแบรนด์
brandname	Varchar	Not Null	ชื่อแบรนด์

Column	Data_type	Constaint	Description
productid	INT	PK	รหัสรถ
productname	Varchar	Not Null	ชื่อรถ
power	INT		กำลัง(kW)
torque	INT		แรงบิด(Nm)
weight	Decimal		น้ำหนัก(t)
transmission	Varchar		ระบบช่วงล่าง
yom	Date		วัน-เดือน-ปีที่ผลิต
description	Varchar		คำอธิบาย
img	Varchar		รหัสรูปภาพ
brand_brandid	INT	FK	รหัสแบรนด์

Column	Data_type	Constaint	Description
productid	INT	PK,FK	รหัสรถ
colorid	INT	FK	รหัสสี

Column	Data_type	Constaint	Description
colorid	INT	PK	รหัสสี
colorname	Varchar	Not Null	ชื่อสี
colorcode	Varchar	Not Null	รหัสสี(#ffffff)

3. คำสั่งสร้างและนำเข้าข้อมูลและการกำหนดค่าผู้ใช้งานข้อมูล(.pdf)

3.1. คำสั่งสร้างและการนำเข้าข้อมูล

คำสั่งสร้าง

```
1  -- MySQL dump 10.13  Distrib 8.0.21, for Win64 (x86_64)
2  --
3  -- Host: localhost    Database: carsdb
4  --
5  -- Server version      8.0.21
6
7  /*!40101 SET @OLD_CHARACTER_SET_CLIENT=@@CHARACTER_SET_CLIENT */;
8  /*!40101 SET @OLD_CHARACTER_SET_RESULTS=@@CHARACTER_SET_RESULTS */;
9  /*!40101 SET @OLD_COLLATION_CONNECTION=@@COLLATION_CONNECTION */;
10 /*!50503 SET NAMES utf8 */;
11 /*!40103 SET @OLD_TIME_ZONE=@@TIME_ZONE */;
12 /*!40103 SET TIME_ZONE='+00:00' */;
13 /*!40014 SET @OLD_UNIQUE_CHECKS=@@UNIQUE_CHECKS, UNIQUE_CHECKS=0 */;
14 /*!40014 SET @OLD_FOREIGN_KEY_CHECKS=@@FOREIGN_KEY_CHECKS, FOREIGN_KEY_CHECKS=0 */;
15 /*!40101 SET @OLD_SQL_MODE=@@SQL_MODE, SQL_MODE='NO_AUTO_VALUE_ON_ZERO' */;
16 /*!40111 SET @OLD_SQL_NOTES=@@SQL_NOTES, SQL_NOTES=0 */;
17
18 --
19 -- Table structure for table `brand`
20 --
21
22 DROP TABLE IF EXISTS `brand`;
23 /*!40101 SET @saved_cs_client      = @@character_set_client */;
24 /*!50503 SET character_set_client = utf8mb4 */;
25 CREATE TABLE `brand` (
26   `brandid` int NOT NULL,
27   `brandname` varchar(45) NOT NULL,
28   PRIMARY KEY (`brandid`),
29   UNIQUE KEY `Brand_Name_UNIQUE` (`brandname`),
30   UNIQUE KEY `Brand_ID_UNIQUE` (`brandid`)
31 ) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_0900_ai_ci;
32 /*!40101 SET character_set_client = @saved_cs_client */;
33
34 --
35 -- Dumping data for table `brand`
36 --
```

```
37
38 LOCK TABLES `brand` WRITE;
39 /*!40000 ALTER TABLE `brand` DISABLE KEYS */;
40 INSERT INTO `brand` VALUES (10001,'ABARTH'),(10002,'ACURA'),(10003,'ALFA ROMEO'),(10004,'ALUMI CRAFT'),(10005,'AMC'),(10006,'AMG Transport Dynamics'),(10007,'AF
41 /*!40000 ALTER TABLE `brand` ENABLE KEYS */;
42 UNLOCK TABLES;
43
44 --
45 -- Table structure for table `color`
46 --
47
48 DROP TABLE IF EXISTS `color`;
49 /*!40101 SET @saved_cs_client      = @@character_set_client */;
50 /*!50503 SET character_set_client = utf8mb4 */;
51 CREATE TABLE `color` (
52   `colorid` int NOT NULL,
53   `colorname` varchar(45) DEFAULT NULL,
54   `colorcode` varchar(7) NOT NULL,
55   PRIMARY KEY (`colorid`),
56   UNIQUE KEY `Color_ID_UNIQUE` (`colorid`),
57   UNIQUE KEY `Color_Code_UNIQUE` (`colorcode`)
58 ) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_0900_ai_ci;
59 /*!40101 SET character_set_client = @saved_cs_client */;
60
61 --
62 -- Dumping data for table `color`
63 --
64
65 LOCK TABLES `color` WRITE;
66 /*!40000 ALTER TABLE `color` DISABLE KEYS */;
67 INSERT INTO `color` VALUES (20001,'IndianRed','#CD5C5C'),(20002,'LightCoral','#F08080'),(20003,'Salmon','#FA8072'),(20004,'DarkSalmon','#E9967A'),(20005,'LightS
68 /*!40000 ALTER TABLE `color` ENABLE KEYS */;
69 UNLOCK TABLES;
70
71 --
72 -- Table structure for table `product`
73 --
```

```

74
75 DROP TABLE IF EXISTS `product`;
76 /*!40101 SET @saved_cs_client      = @@character_set_client */;
77 /*!50503 SET character_set_client = utf8mb4 */;
78 CREATE TABLE `product` (
79   `productid` int NOT NULL,
80   `productname` varchar(45) NOT NULL,
81   `power` int DEFAULT NULL,
82   `torque` int DEFAULT NULL,
83   `weight` decimal(10,3) DEFAULT NULL,
84   `transmission` varchar(3) DEFAULT NULL,
85   `yom` date DEFAULT NULL,
86   `description` varchar(255) DEFAULT NULL,
87   `img` varchar(255) DEFAULT NULL,
88   `brand_brandid` int NOT NULL,
89   PRIMARY KEY (`productid`),
90   UNIQUE KEY `Product_ID_UNIQUE` (`productid`),
91   UNIQUE KEY `Name_UNIQUE` (`productname`),
92   KEY `fk_Product_Brand_idx` (`brand_brandid`),
93   CONSTRAINT `fk_Product_Brand` FOREIGN KEY (`brand_brandid`) REFERENCES `brand` (`brandid`)
94 ) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_0900_ai_ci;
95 /*!40101 SET character_set_client = @saved_cs_client */;
96
97 --
98 -- Dumping data for table `product`
99 --
100
101 LOCK TABLES `product` WRITE;
102 /*!40000 ALTER TABLE `product` DISABLE KEYS */;
103 INSERT INTO `product` VALUES (30001,'124 Spider',123,250,1.124,'RWD','2017-04-22','The 124 Spider was first introduced in 2016 as a homage to the 50th anniversary
104 of the 124 Spider');
105 UNLOCK TABLES;
106
107 --
108 -- Table structure for table `productcolor`
109 --

```

```

110
111 DROP TABLE IF EXISTS `productcolor`;
112 /*!40101 SET @saved_cs_client      = @@character_set_client */;
113 /*!50503 SET character_set_client = utf8mb4 */;
114 CREATE TABLE `productcolor` (
115   `productid` int NOT NULL,
116   `colorid` int NOT NULL,
117   PRIMARY KEY (`productid`,`colorid`),
118   KEY `fk_Product_has_Color_Color1_idx` (`colorid`),
119   KEY `fk_Product_has_Color_Product1_idx` (`productid`),
120   CONSTRAINT `fk_Product_has_Color_Color1` FOREIGN KEY (`colorid`) REFERENCES `color` (`colorid`),
121   CONSTRAINT `fk_Product_has_Color_Product1` FOREIGN KEY (`productid`) REFERENCES `product` (`productid`)
122 ) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_0900_ai_ci;
123 /*!40101 SET character_set_client = @saved_cs_client */;
124
125 --
126 -- Dumping data for table `productcolor`
127 --
128
129 LOCK TABLES `productcolor` WRITE;
130 /*!40000 ALTER TABLE `productcolor` DISABLE KEYS */;
131 INSERT INTO `productcolor` VALUES (30001,20007),(30003,20007),(30005,20007),(30006,20007),(30008,20007),(30009,20007),(30010,20007),(30011,20007),(30012,20007),
132 (30013,20007),(30014,20007),(30015,20007),(30016,20007),(30017,20007),(30018,20007),(30019,20007),(30020,20007),(30021,20007),(30022,20007),(30023,20007),(30024,20007),
133 (30025,20007),(30026,20007),(30027,20007),(30028,20007),(30029,20007),(30030,20007),(30031,20007),(30032,20007),(30033,20007),(30034,20007),(30035,20007),(30036,20007),
134 (30037,20007),(30038,20007),(30039,20007),(30040,20007),(30041,20007),(30042,20007),(30043,20007),(30044,20007),(30045,20007),(30046,20007),(30047,20007),(30048,20007),
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141 (30121,20007),(30122,20007),(30123,20007),(30124,20007),(30125,20007),(30126,20007),(30127,20007),(30128,20007),(30129,20007),(30130,20007),(30131,20007),(30132,20007),
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143 (30145,20007),(30146,20007),(30147,20007),(30148,20007),(30149,20007),(30150,20007),(30151,20007),(30152,20007),(30153,20007),(30154,20007),(30155,20007),(30156,20007),
144 (30157,20007),(30158,20007),(30159,20007),(30160,20007),(30161,20007),(30162,20007),(30163,20007),(30164,20007),(30165,20007),(30166,20007),(30167,20007),(30168,20007),
145 (30169,20007),(30170,20007),(30171,20007),(30172,20007),(30173,20007),(30174,20007),(30175,20007),(30176,20007),(30177,20007),(30178,20007),(30179,20007),(30180,20007),
146 (30181,20007),(30182,20007),(30183,20007),(30184,20007),(30185,20007),(30186,20007),(30187,20007),(30188,20007),(30189,20007),(30190,20007),(30191,20007),(30192,20007),
147 (30193,20007),(30194,20007),(30195,20007),(30196,20007),(30197,20007),(30198,20007),(30199,20007),(30200,20007),(30201,20007),(30202,20007),(30203,20007),(30204,20007),
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149 (30217,20007),(30218,20007),(30219,20007),(30220,20007),(30221,20007),(30222,20007),(30223,20007),(30224,20007),(30225,20007),(30226,20007),(30227,20007),(30228,20007),
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153 (30265,20007),(30266,20007),(30267,20007),(30268,20007),(30269,20007),(30270,20007),(30271,20007),(30272,20007),(30273,20007),(30274,20007),(30275,20007),(30276,20007),
154 (30277,20007),(30278,20007),(30279,20007),(30280,20007),(30281,20007),(30282,20007),(30283,20007),(30284,20007),(30285,20007),(30286,20007),(30287,20007),(30288,20007),
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159 (30337,20007),(30338,20007),(30339,20007),(30340,20007),(30341,20007),(30342,20007),(30343,20007),(30344,20007),(30345,20007),(30346,20007),(30347,20007),(30348,20007),
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178 (30565,20007),(30566,20007),(30567,20007),(30568,20007),(30569,20007),(30570,20007),(30571,20007),(30572,20007),(30573,20007),(30574,20007),(30575,20007),(30576,20007),
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181 (30601,20007),(30602,20007),(30603,20007),(30604,20007),(30605,20007),(30606,20007),(30607,20007),(30608,20007),(30609,20007),(30610,20007),(30611,20007),(30612,20007),
182 (30613,20007),(30614,20007),(30615,20007),(30616,20007),(30617,20007),(30618,20007),(30619,20007),(30620,20007),(30621,20007),(30622,20007),(30623,20007),(30624,20007),
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184 (30637,20007),(30638,20007),(30639,20007),(30640,20007),(30641,20007),(30642,20007),(30643,20007),(30644,20007),(30645,20007),(30646,20007),(30647,20007),(30648,20007),
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187 (30673,20007),(30674,20007),(30675,20007),(30676,20007),(30677,20007),(30678,20007),(30679,20007),(30680,20007),(30681,20007),(30682,20007),(30683,20007),(30684,20007),
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195 (30769,20007),(30770,20007),(30771,20007),(30772,20007),(30773,20007),(30774,20007),(30775,20007),(30776,20007),(30777,20007),(30778,20007),(30779,20007),(30780,20007),
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207 (30913,20007),(30914,20007),(30915,20007),(30916,20007),(30917,20007),(30918,20007),(30919,20007),(30920,20007),(30921,20007),(30922,20007),(30923,20007),(30924,20007),
208 (30925,20007),(30926,20007),(
```

การนำเข้าข้อมูล

brand.sql : ex.

```
1 INSERT INTO `carsdb`.`brand` (`brandid`, `brandname`) VALUES ('10001', 'ABARTH');
2 INSERT INTO `carsdb`.`brand` (`brandid`, `brandname`) VALUES ('10002', 'ACURA');
3 INSERT INTO `carsdb`.`brand` (`brandid`, `brandname`) VALUES ('10003', 'ALFA ROMEO');
4 INSERT INTO `carsdb`.`brand` (`brandid`, `brandname`) VALUES ('10004', 'ALUMI CRAFT');
5 INSERT INTO `carsdb`.`brand` (`brandid`, `brandname`) VALUES ('10005', 'AMC');
6 INSERT INTO `carsdb`.`brand` (`brandid`, `brandname`) VALUES ('10006', 'AMG Transport Dynamics');
7 INSERT INTO `carsdb`.`brand` (`brandid`, `brandname`) VALUES ('10007', 'ARIEL');
8 INSERT INTO `carsdb`.`brand` (`brandid`, `brandname`) VALUES ('10008', 'ASCARI');
9 INSERT INTO `carsdb`.`brand` (`brandid`, `brandname`) VALUES ('10009', 'ASTON MARTIN');
10 INSERT INTO `carsdb`.`brand` (`brandid`, `brandname`) VALUES ('10010', 'AUDI');
```

color.sql : ex.

```
1 INSERT INTO `carsdb`.`color` (`colorid`, `colorname`, `colorcode`) VALUES ('20001', 'IndianRed', '#CD5C5C');
2 INSERT INTO `carsdb`.`color` (`colorid`, `colorname`, `colorcode`) VALUES ('20002', 'LightCoral', '#F08080');
3 INSERT INTO `carsdb`.`color` (`colorid`, `colorname`, `colorcode`) VALUES ('20003', 'Salmon', '#FA8072');
4 INSERT INTO `carsdb`.`color` (`colorid`, `colorname`, `colorcode`) VALUES ('20004', 'DarkSalmon', '#E9967A');
5 INSERT INTO `carsdb`.`color` (`colorid`, `colorname`, `colorcode`) VALUES ('20005', 'LightSalmon', '#FFA07A');
6 INSERT INTO `carsdb`.`color` (`colorid`, `colorname`, `colorcode`) VALUES ('20006', 'Crimson', '#DC143C');
7 INSERT INTO `carsdb`.`color` (`colorid`, `colorname`, `colorcode`) VALUES ('20007', 'Red', '#FF0000');
8 INSERT INTO `carsdb`.`color` (`colorid`, `colorname`, `colorcode`) VALUES ('20008', 'FireBrick', '#B22222');
9 INSERT INTO `carsdb`.`color` (`colorid`, `colorname`, `colorcode`) VALUES ('20009', 'DarkRed', '#8B0000');
10 INSERT INTO `carsdb`.`color` (`colorid`, `colorname`, `colorcode`) VALUES ('20010', 'Pink', '#FFC0CB');
11 INSERT INTO `carsdb`.`color` (`colorid`, `colorname`, `colorcode`) VALUES ('20011', 'LightPink', '#FFB6C1');
12 INSERT INTO `carsdb`.`color` (`colorid`, `colorname`, `colorcode`) VALUES ('20012', 'HotPink', '#FF69B4');
13 INSERT INTO `carsdb`.`color` (`colorid`, `colorname`, `colorcode`) VALUES ('20013', 'DeepPink', '#FF1493');
14 INSERT INTO `carsdb`.`color` (`colorid`, `colorname`, `colorcode`) VALUES ('20014', 'MediumVioletRed', '#C71585');
15 INSERT INTO `carsdb`.`color` (`colorid`, `colorname`, `colorcode`) VALUES ('20015', 'PaleVioletRed', '#DB7093');
```

productcolor.sql : ex

```
1 INSERT INTO `carsdb`.`productcolor` (`productid`, `colorid`) VALUES ('30001', '20139');
2 INSERT INTO `carsdb`.`productcolor` (`productid`, `colorid`) VALUES ('30001', '20117');
3 INSERT INTO `carsdb`.`productcolor` (`productid`, `colorid`) VALUES ('30001', '20007');
4 INSERT INTO `carsdb`.`productcolor` (`productid`, `colorid`) VALUES ('30001', '20076');
5 INSERT INTO `carsdb`.`productcolor` (`productid`, `colorid`) VALUES ('30002', '20138');
6 INSERT INTO `carsdb`.`productcolor` (`productid`, `colorid`) VALUES ('30003', '20007');
7 INSERT INTO `carsdb`.`productcolor` (`productid`, `colorid`) VALUES ('30003', '20023');
8 INSERT INTO `carsdb`.`productcolor` (`productid`, `colorid`) VALUES ('30003', '20095');
9 INSERT INTO `carsdb`.`productcolor` (`productid`, `colorid`) VALUES ('30003', '20117');
10 INSERT INTO `carsdb`.`productcolor` (`productid`, `colorid`) VALUES ('30004', '20117');
11 INSERT INTO `carsdb`.`productcolor` (`productid`, `colorid`) VALUES ('30005', '20139');
12 INSERT INTO `carsdb`.`productcolor` (`productid`, `colorid`) VALUES ('30005', '20117');
13 INSERT INTO `carsdb`.`productcolor` (`productid`, `colorid`) VALUES ('30005', '20007');
14 INSERT INTO `carsdb`.`productcolor` (`productid`, `colorid`) VALUES ('30005', '20095');
15 INSERT INTO `carsdb`.`productcolor` (`productid`, `colorid`) VALUES ('30006', '20139');
```

product.sql : ex

```
1 INSERT INTO `carsdb`.`product` (`productid`, `productname`, `power`, `torque`, `weight`, `transmission`, `yom`, `description`, `img`, `brand_brandid`)
2 VALUES ('30001', '124 Spider', '123', '250', '1.124', 'RWD', '2017-04-22', 'The 124 Spider was first introduced in 2016 as a homage to the 50th anniversary of the
3 INSERT INTO `carsdb`.`product` (`productid`, `productname`, `power`, `torque`, `weight`, `transmission`, `yom`, `description`, `img`, `brand_brandid`)
4 VALUES ('30002', '695 Biposto', '139', '249', '0.997', 'FWD', '2016-12-05', 'Using technology derived from the 695 Assetto Corse racing car series, it is currently
5 INSERT INTO `carsdb`.`product` (`productid`, `productname`, `power`, `torque`, `weight`, `transmission`, `yom`, `description`, `img`, `brand_brandid`)
6 VALUES ('30003', 'Fiat 131', '104', '176', '0.98', 'RWD', '1980-03-21', 'Carlo Abarth is rightfully famous for applying the dark art of tuning to some of the most
7 INSERT INTO `carsdb`.`product` (`productid`, `productname`, `power`, `torque`, `weight`, `transmission`, `yom`, `description`, `img`, `brand_brandid`)
8 VALUES ('30004', '595 Essee', '21', '46', '0.57', 'RWD', '1968-06-15', 'What it lacks in power and refinement it makes up for in character and likability. The
9 INSERT INTO `carsdb`.`product` (`productid`, `productname`, `power`, `torque`, `weight`, `transmission`, `yom`, `description`, `img`, `brand_brandid`)
10 VALUES ('30005', 'NSX', '427', '845', '1.725', 'AWD', '2017-08-22', 'Sold as a Honda model outside of North America, the 2017 NSX is an AWD hybrid supercar that
11 INSERT INTO `carsdb`.`product` (`productid`, `productname`, `power`, `torque`, `weight`, `transmission`, `yom`, `description`, `img`, `brand_brandid`)
12 VALUES ('30006', 'RSX Type-S', '149', '193', '1.279', 'FWD', '2002-04-25', 'The Acura RSX is the successor to the Acura Integra that was sold in North America and
13 INSERT INTO `carsdb`.`product` (`productid`, `productname`, `power`, `torque`, `weight`, `transmission`, `yom`, `description`, `img`, `brand_brandid`)
14 VALUES ('30007', 'Integra Type-R', '145', '176', '1.197', 'FWD', '2001-01-13', 'The Type-R is the top-of-the-line model of the last generation Acura Integra, the
15 INSERT INTO `carsdb`.`product` (`productid`, `productname`, `power`, `torque`, `weight`, `transmission`, `yom`, `description`, `img`, `brand_brandid`)
16 VALUES ('30008', 'Stelvio Quadrifoglio', '337', '600', '1.978', 'AWD', '2018-12-12', 'The 2018 Alfa Romeo Stelvio Quadrifoglio, abbreviated as Alfa Stelvio, is
17 INSERT INTO `carsdb`.`product` (`productid`, `productname`, `power`, `torque`, `weight`, `transmission`, `yom`, `description`, `img`, `brand_brandid`)
18 VALUES ('30009', 'Giulia Quadrifoglio', '377', '600', '1.701', 'RWD', '2017-08-15', 'The Giulia Quadrifoglio is the high-performance model of the new Giulia line
```

3.2. การกำหนดค่าผู้ใช้งานข้อมูล

```
CREATE USER 'chom'@'%' IDENTIFIED BY 'mysql';
```

```
CREATE USER 'kamin'@'%' IDENTIFIED BY 'mysql';
```

```
GRANT SELECT, INSERT, UPDATE, DELETE, CREATE, DROP, RELOAD, EXECUTE, CREATE VIEW, SHOW VIEW,
```

```
CREATE ROLE, DROP ROLE ON *.* TO `chom`@`%` WITH GRANT OPTION;
```

```
GRANT SELECT, INSERT, UPDATE, DELETE, CREATE, DROP, RELOAD, EXECUTE, CREATE VIEW, SHOW VIEW,
```

```
CREATE ROLE, DROP ROLE ON *.* TO `kamin`@`%` WITH GRANT OPTION;
```

```
commit;
```

```
1 CREATE USER 'chom'@'%' IDENTIFIED BY 'mysql';
2 CREATE USER 'kamin'@'%' IDENTIFIED BY 'mysql';
3
4 GRANT SELECT, INSERT, UPDATE, DELETE, CREATE, DROP, RELOAD, EXECUTE, CREATE VIEW, SHOW VIEW, CREATE ROLE, DROP ROLE ON *.* TO `chom`@`%` WITH GRANT OPTION;
5 GRANT SELECT, INSERT, UPDATE, DELETE, CREATE, DROP, RELOAD, EXECUTE, CREATE VIEW, SHOW VIEW, CREATE ROLE, DROP ROLE ON *.* TO `kamin`@`%` WITH GRANT OPTION;
6
7 commit;
```