

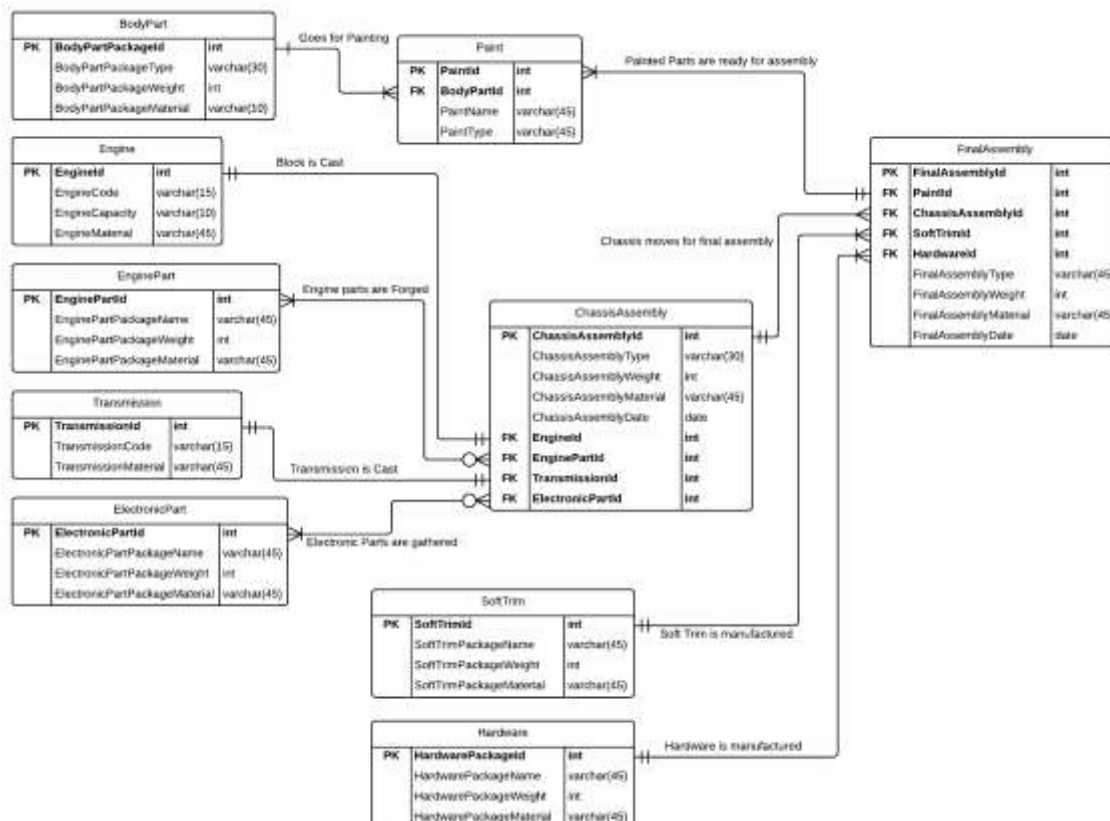
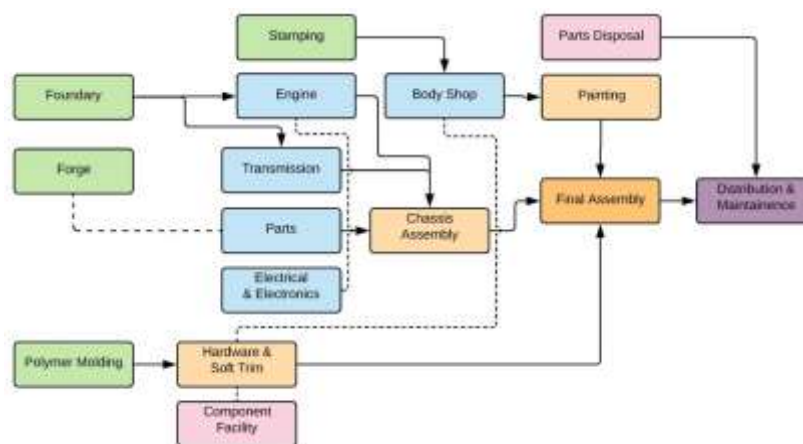
## CAR MANUFACTURER

### Assembly Line Project

#### 1. Problem Statements

A database is required for a car manufacturing company to assist their flow in the assembly line and to help assembly line employees with knowing which car requires what assemblies. This company has a simple yet niche database requirement. There are two stages of assemblies; one is the chassis assembly where engine, transmission, and parts related to these are assembled and a final assembly where the trim packages, hardware and painted body parts are assembled

#### 2. Flow Diagram & ERD



### 3. Business Rules

1. Create an assembly process that allows for efficient flow with least resistance in time delay.
2. Parts for Chassis and Final Assemblies may be completed in a variety of methods, no one order has to be assembled in the same order, however Chassis Assembly must be completed before the Final Assembly
3. Part weights must be included in order to measure actual final weight in comparison to designed final weight.

### 4. Definitions

#### Triggers

##### After Update ChassisAssembly Trigger Code

```

1 CREATE DEFINER='root'@'localhost' TRIGGER `assemblyline`.`chassisassembly_AFTER_UPDATE`
2 AFTER UPDATE ON `chassisassembly`
3 FOR EACH ROW
4 BEGIN
5
6 INSERT INTO completedchassisassembly (ChassisAssemblyId, ChassisAssemblyType, ChassisAssemblyWeight,
7 ChassisAssemblyMaterial, ChassisAssemblyDate, EngineId, EnginePartId, TransmissionId, ElectronicPartId)
8 VALUES (OLD.ChassisAssemblyId, OLD.ChassisAssemblyType, OLD.ChassisAssemblyWeight,
9 OLD.ChassisAssemblyMaterial, OLD.ChassisAssemblyDate, OLD.EngineId, OLD.EnginePartId,
10 OLD.TransmissionId, OLD.ElectronicPartId);
11 END

```

##### Before Delete ChassisAssembly Trigger Code

```

1 CREATE DEFINER='root'@'localhost' TRIGGER `assemblyline`.`chassisassembly_BEFORE_DELETE`
2 BEFORE DELETE ON `chassisassembly`
3 FOR EACH ROW
4 BEGIN
5
6 INSERT INTO completedchassisassembly (ChassisAssemblyId, ChassisAssemblyType, ChassisAssemblyWeight,
7 ChassisAssemblyMaterial, ChassisAssemblyDate, EngineId, EnginePartId, TransmissionId, ElectronicPartId)
8 VALUES (OLD.ChassisAssemblyId, OLD.ChassisAssemblyType, OLD.ChassisAssemblyWeight,
9 OLD.ChassisAssemblyMaterial, OLD.ChassisAssemblyDate, OLD.EngineId, OLD.EnginePartId,
10 OLD.TransmissionId, OLD.ElectronicPartId);
11 END

```

##### After Update FinalAssembly Trigger Code

```

1 CREATE DEFINER='root'@'localhost' TRIGGER `assemblyline`.`finalassembly_AFTER_UPDATE`
2 AFTER UPDATE ON `finalassembly`
3 FOR EACH ROW
4 BEGIN
5
6 INSERT INTO completedfinalassembly (FinalAssemblyId, FinalAssemblyType, FinalAssemblyWeight,
7 FinalAssemblyMaterial, FinalAssemblyDate, ChassisAssemblyId, SoftTrimId, HardwareId, PaintId, BodyPartId)
8 VALUES (OLD.FinalAssemblyId, OLD.FinalAssemblyType, OLD.FinalAssemblyWeight,
9 OLD.FinalAssemblyMaterial, OLD.FinalAssemblyDate, OLD.ChassisAssemblyId,
10 OLD.SoftTrimId, OLD.HardwareId, OLD.PaintId, OLD.BodyPartId);
11 END

```

##### Before Delete FinalAssembly Trigger Code

```

1 CREATE DEFINER='root'@'localhost' TRIGGER `assemblyline`.`finalassembly_BEFORE_DELETE`
2 BEFORE DELETE ON `finalassembly`
3 FOR EACH ROW
4 BEGIN
5
6 INSERT INTO completedfinalassembly (FinalAssemblyId, FinalAssemblyType, FinalAssemblyWeight,
7 FinalAssemblyMaterial, FinalAssemblyDate, ChassisAssemblyId, SoftTrimId, HardwareId, PaintId, BodyPartId)
8 VALUES (OLD.FinalAssemblyId, OLD.FinalAssemblyType, OLD.FinalAssemblyWeight,
9 OLD.FinalAssemblyMaterial, OLD.FinalAssemblyDate, OLD.ChassisAssemblyId, OLD.SoftTrimId,
10 OLD.HardwareId, OLD.PaintId, OLD.BodyPartId);
11 END

```

## After Update ChassisAssembly action

Assembly Line\* SQL File 3\*

```

1 INSERT INTO chassisassembly (chassisassemblytype, chassisassemblyweight, chassisassemblymaterial, chassisassemblydate,
2 engineid, enginepartid, transmissionid, electronicpartid)
3 VALUES ('Luxury Truck', '4000 Kg', 'Aluminium', '2017-10-12', 9, 9, 4, 15);
4
5 UPDATE 'assemblyline'.chassisassembly SET 'ChassisAssemblyMaterial'='Steel', 'TransmissionId'='7' WHERE 'ChassisAssemblyId'='49';
6
7 SELECT * FROM 'chassisassemblyhistory';
8
9

```

Result Grid

ChassisAssemblyHistoryId	ChassisAssemblyId	ChassisAssemblyType	ChassisAssemblyWeight	ChassisAssemblyMaterial	ChassisAssemblyDate	EngineId	EnginePartId	TransmissionId	Electronic
1	48	Luxury Sedan	1300 Kg	Aluminum	2017-05-08	6	6	8	14
2	49	Luxury Truck	4000 Kg	Aluminum	2017-10-12	9	9	4	15

## Before Delete ChassisAssembly action

SQL File 3\*

```

1 INSERT INTO chassisassembly (chassisassemblytype, chassisassemblyweight, chassisassemblymaterial, chassisassemblydate,
2 engineid, enginepartid, transmissionid, electronicpartid)
3 VALUES ('Luxury Sedan', '1500 Kg', 'Aluminium', '2017-05-08', 6, 6, 8, 14);
4
5 DELETE FROM 'assemblyline'.chassisassembly WHERE 'ChassisAssemblyId'='48';
6
7 SELECT * FROM 'chassisassemblyhistory';
8
9

```

Result Grid

ChassisAssemblyHistoryId	ChassisAssemblyId	ChassisAssemblyType	ChassisAssemblyWeight	ChassisAssemblyMaterial	ChassisAssemblyDate	EngineId	EnginePartId	TransmissionId	Electronic
1	48	Luxury Sedan	1500 Kg	Aluminum	2017-05-08	6	6	8	14

## Views

## 5 Latest Chassis Assemblies by Date (Limited to 5)

	chassisassemblyid	chassisassemblytype	chassisassemblydate	engineid	enginepartid	transmissionid	electronicpartid
	41	Premium Limousine	2018-04-01	2	2	1	20
	15	Base Hatchback	2018-03-31	5	5	11	1
	22	Premium Convertable	2018-03-30	6	6	5	14
	20	Premium Coupe	2018-03-09	8	15	4	12
	21	Base Convertable	2018-03-08	10	10	9	13

## 5 Latest Final Assemblies by Date (Limited to 5)

	finalassemblyid	finalassemblytype	finalassemblydate	softtrimid	hardwareid	paintid	bodypartid
	41	Premium Limousine	2018-04-29	14	2	17	7
	22	Premium Convertable	2018-04-26	8	2	18	4
	29	Premium Wagon	2018-04-20	10	2	29	5
	36	Base Truck	2018-04-18	11	1	24	6
	23	Base Wagon	2018-04-12	9	1	29	5

## All Chassis &amp; Final Assembly Dates with Chassis and Final IDs

	ChassisAssemblyId	FinalAssemblyId	ChassisAssemblyDate	FinalAssemblyDate
	15	15	2018-03-31	2018-04-05
	16	16	2018-02-22	2018-03-30
	17	17	2018-01-27	2018-03-15
	18	18	2018-01-15	2018-02-14
	19	19	2018-02-11	2018-04-02
	20	20	2018-03-09	2018-03-30
	21	21	2018-03-08	2018-04-01
	22	22	2018-03-30	2018-04-26
	23	23	2018-02-21	2018-04-12
	29	29	2018-01-02	2018-04-20
	36	36	2018-01-08	2018-04-18
	40	40	2018-01-12	2018-03-08
	41	41	2018-04-01	2018-04-29

## Stored Procedure

### getChassisAssemblyType Code and Call Procedure

```

1 • CREATE DEFINER='root'@'localhost' PROCEDURE `getChassisType`(IN ChassisId INT, OUT ChassisType VARCHAR(45))
2 • BEGIN
3 •     SELECT ChassisAssemblyType INTO ChassisType
4 •     FROM chassisassembly
5 •     WHERE ChassisAssemblyId = ChassisId;
6 • END

1 • SET @ChassisId =20;
2 • CALL `assemblyline`.`getChassisType`(@ChassisId , @ChassisType);
3 • SELECT @ChassisType;
4 •

```

### getFinalAssemblyType Code and Call Procedure

```

1 • CREATE DEFINER='root'@'localhost' PROCEDURE `getFinAssembly Type`(IN FinAssemblyId INT, OUT FinAssemblyType VARCHAR(45))
2 • BEGIN
3 •     SELECT FinalAssemblyType INTO FinAssemblyType
4 •     FROM finalassembly
5 •     WHERE FinalAssemblyId = FinAssemblyId;
6 • END

1 • SET @FinAssemblyId =20;
2 • CALL `assemblyline`.`getFinAssembly Type`(@FinAssemblyId, @FinAssemblyType);
3 • SELECT @FinAssemblyType;
4 •

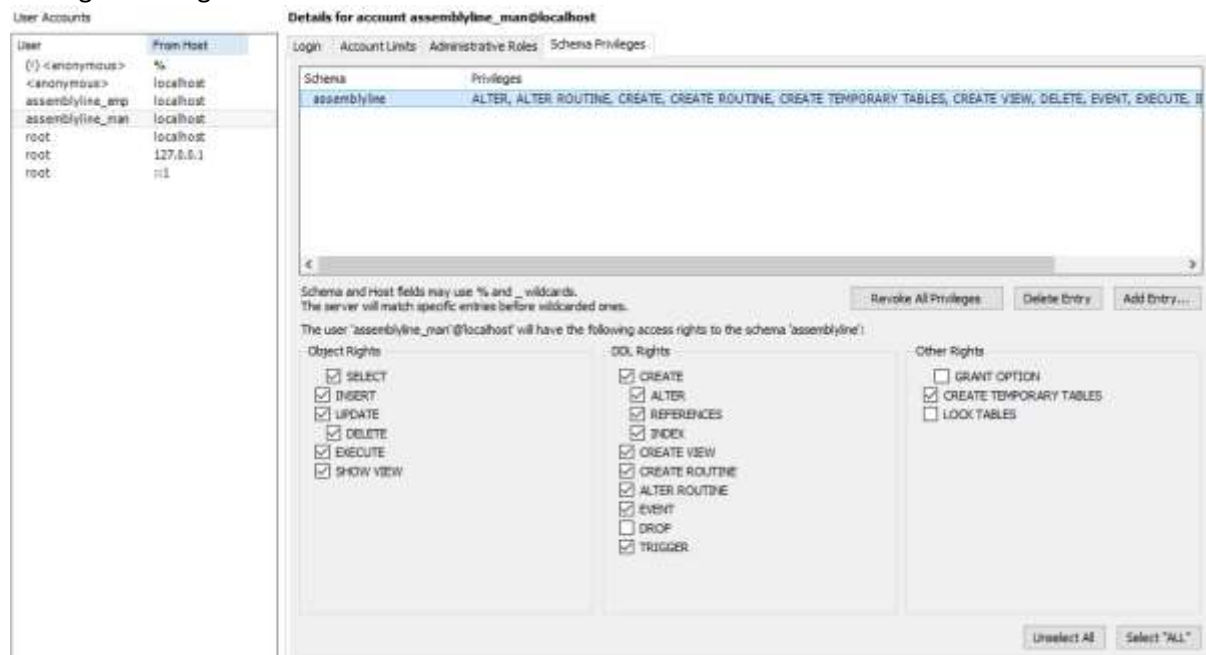
```

## Roles & Privileges

### Employee Privilege

The screenshot displays the MySQL Workbench interface. On the left, the 'User Accounts' pane lists several users, including 'assemblyline\_emp' with host 'localhost'. The main window shows the 'Details for account assemblyline\_emp@localhost' dialog, with the 'Schema Privileges' tab selected. This tab shows a table with columns 'Schema' and 'Privileges'. The 'assemblyline' schema is listed with 'SELECT, SHOW VIEW' privileges. Below this table, there are sections for 'Object Rights', 'DDL Rights', and 'Other Rights', each with a list of checkboxes for various database operations. The 'Object Rights' section has 'SELECT' and 'SHOW VIEW' checked. The 'DDL Rights' section has 'CREATE VIEW' checked. The 'Other Rights' section has 'GRANT OPTION' checked. At the bottom right, there are buttons for 'Unselect All' and 'Select ALL'.

## Manager Privilege



## Appendix

### 1. MySQL Script (Dump File)

```
-- MySQL dump 10.13 Distrib 5.7.17, for Win64 (x86_64)
--
-- Host: 127.0.0.1 Database: assemblyline
--
-- Server version 5.6.39

/*!40101 SET @OLD_CHARACTER_SET_CLIENT=@@CHARACTER_SET_CLIENT */;
/*!40101 SET @OLD_CHARACTER_SET_RESULTS=@@CHARACTER_SET_RESULTS */;
/*!40101 SET @OLD_COLLATION_CONNECTION=@@COLLATION_CONNECTION */;
/*!40101 SET NAMES utf8 */;
/*!40103 SET @OLD_TIME_ZONE=@@TIME_ZONE */;
/*!40103 SET TIME_ZONE='+00:00' */;
/*!40014 SET @OLD_UNIQUE_CHECKS=@@UNIQUE_CHECKS, UNIQUE_CHECKS=0 */;
/*!40014 SET @OLD_FOREIGN_KEY_CHECKS=@@FOREIGN_KEY_CHECKS, FOREIGN_KEY_CHECKS=0 */;
/*!40101 SET @OLD_SQL_MODE=@@SQL_MODE, SQL_MODE='NO_AUTO_VALUE_ON_ZERO' */;
/*!40111 SET @OLD_SQL_NOTES=@@SQL_NOTES, SQL_NOTES=0 */;

--
-- Temporary view structure for view `5latestchassis`
--

DROP TABLE IF EXISTS `5latestchassis`;
/*!50001 DROP VIEW IF EXISTS `5latestchassis` */;
SET @saved_cs_client = @@character_set_client;
SET character_set_client = utf8;
```

```
/*!50001 CREATE VIEW `5latestchassis` AS SELECT
  1 AS `chassisassemblyid`,
  1 AS `chassisassemblytype`,
  1 AS `chassisassemblydate`,
  1 AS `engineid`,
  1 AS `enginepartid`,
  1 AS `transmissionid`,
  1 AS `electronicpartid`*/;
SET character_set_client = @saved_cs_client;

--
-- Temporary view structure for view `5latestfinalassemblies`
--

DROP TABLE IF EXISTS `5latestfinalassemblies`;
/*!50001 DROP VIEW IF EXISTS `5latestfinalassemblies`*/;
SET @saved_cs_client = @@character_set_client;
SET character_set_client = utf8;
/*!50001 CREATE VIEW `5latestfinalassemblies` AS SELECT
  1 AS `finalassemblyid`,
  1 AS `finalassemblytype`,
  1 AS `finalassemblydate`,
  1 AS `softtrimid`,
  1 AS `hardwareid`,
  1 AS `paintid`,
  1 AS `bodypartid`*/;
SET character_set_client = @saved_cs_client;

--
-- Temporary view structure for view `allassemblydates`
--

DROP TABLE IF EXISTS `allassemblydates`;
/*!50001 DROP VIEW IF EXISTS `allassemblydates`*/;
SET @saved_cs_client = @@character_set_client;
SET character_set_client = utf8;
/*!50001 CREATE VIEW `allassemblydates` AS SELECT
  1 AS `ChassisAssemblyId`,
  1 AS `FinalAssemblyId`,
  1 AS `ChassisAssemblyDate`,
  1 AS `FinalAssemblyDate`*/;
SET character_set_client = @saved_cs_client;

--
-- Table structure for table `bodypart`
--

DROP TABLE IF EXISTS `bodypart`;
/*!40101 SET @saved_cs_client = @@character_set_client */;
/*!40101 SET character_set_client = utf8 */;
CREATE TABLE `bodypart` (
  `BodyPartPackageId` int(11) NOT NULL AUTO_INCREMENT,
  `Bo0dyPartPackageType` varchar(45) NOT NULL,
```

```
`BodyPartPackageWeight` int(5) NOT NULL,
`BodyPartPackageMaterial` varchar(45) NOT NULL,
PRIMARY KEY (`BodyPartPackageld`)
) ENGINE=InnoDB AUTO_INCREMENT=8 DEFAULT CHARSET=latin1;
/*!40101 SET character_set_client = @saved_cs_client */;

--
-- Dumping data for table `bodypart`
--

LOCK TABLES `bodypart` WRITE;
/*!40000 ALTER TABLE `bodypart` DISABLE KEYS */;
INSERT INTO `bodypart` VALUES (1,'Hatchback',25,'PPE & Metal'),(2,'Sedan',50,'PPE,
Metal'),(3,'Coupe',30,'PPE, Metal'),(4,'Convertible',38,'PPE, Metal, Cloth'),(5,'Wagon',55,'PPE,
Metal'),(6,'Truck',70,'PPE, Metal'),(7,'Limousine',28,'PPE, Metal');
/*!40000 ALTER TABLE `bodypart` ENABLE KEYS */;
UNLOCK TABLES;

--
-- Table structure for table `chassisassembly`
--

DROP TABLE IF EXISTS `chassisassembly`;
/*!40101 SET @saved_cs_client = @@character_set_client */;
/*!40101 SET character_set_client = utf8 */;
CREATE TABLE `chassisassembly` (
  `ChassisAssemblyId` int(11) NOT NULL AUTO_INCREMENT,
  `ChassisAssemblyType` varchar(45) NOT NULL,
  `ChassisAssemblyWeight` int(5) NOT NULL,
  `ChassisAssemblyMaterial` varchar(45) NOT NULL,
  `ChassisAssemblyDate` date NOT NULL,
  `EngineId` int(11) DEFAULT NULL,
  `EnginePartId` int(11) DEFAULT NULL,
  `TransmissionId` int(11) DEFAULT NULL,
  `ElectronicPartId` int(11) DEFAULT NULL,
  PRIMARY KEY (`ChassisAssemblyId`),
  KEY `EngineId_idx` (`EngineId`),
  KEY `EnginePartId_idx` (`EnginePartId`),
  KEY `TransmissionId_idx` (`TransmissionId`),
  KEY `ElectronicPartId_idx` (`ElectronicPartId`),
  CONSTRAINT `ElectronicPartId` FOREIGN KEY (`ElectronicPartId`) REFERENCES `electronicpart`
(`ElectronicPartId`) ON DELETE NO ACTION ON UPDATE NO ACTION,
  CONSTRAINT `EngineId` FOREIGN KEY (`EngineId`) REFERENCES `engine` (`EngineId`) ON DELETE NO
ACTION ON UPDATE NO ACTION,
  CONSTRAINT `EnginePartId` FOREIGN KEY (`EnginePartId`) REFERENCES `enginepart`
(`EnginePartId`) ON DELETE NO ACTION ON UPDATE NO ACTION,
  CONSTRAINT `TransmissionId` FOREIGN KEY (`TransmissionId`) REFERENCES `transmission`
(`TransmissionId`) ON DELETE NO ACTION ON UPDATE NO ACTION
) ENGINE=InnoDB AUTO_INCREMENT=53 DEFAULT CHARSET=latin1;
/*!40101 SET character_set_client = @saved_cs_client */;

--
-- Dumping data for table `chassisassembly`
```



--

```
LOCK TABLES `chassisassembly` WRITE;
/*!40000 ALTER TABLE `chassisassembly` DISABLE KEYS */;
INSERT INTO `chassisassembly` VALUES (15,'Base Hatchback',700,'Steel','2018-03-31',5,5,11,1),(16,'Premium Hatchback',750,'Steel','2018-02-22',6,6,10,8),(17,'Base Sedan',1200,'Steel','2018-01-27',2,2,1,9),(18,'Premium Sedan',1300,'Steel','2018-01-15',1,1,5,10),(19,'Base Coupe',900,'Steel','2018-02-11',6,6,7,11),(20,'Premium Coupe',980,'Steel','2018-03-09',8,15,4,12),(21,'Base Convertible',1100,'Steel','2018-03-08',10,10,9,13),(22,'Premium Convertible',1190,'Steel','2018-03-30',6,6,5,14),(23,'Base Wagon',1500,'Steel','2018-02-21',14,14,7,15),(29,'Premium Wagon',1550,'Steel','2018-01-02',9,9,8,16),(36,'Base Truck',2300,'Steel','2018-01-08',11,11,2,17),(40,'Base Limousine',4000,'Steel','2018-01-12',5,5,5,19),(41,'Premium Limousine',4150,'Steel','2018-04-01',2,2,1,20),(52,'Luxury Truck',4000,'Aluminium','2017-10-12',9,9,4,15);
/*!40000 ALTER TABLE `chassisassembly` ENABLE KEYS */;
UNLOCK TABLES;
```

--

-- Table structure for table `completedchassisassembly`

--

```
DROP TABLE IF EXISTS `completedchassisassembly`;
/*!40101 SET @saved_cs_client = @@character_set_client */;
/*!40101 SET character_set_client = utf8 */;
CREATE TABLE `completedchassisassembly` (
  `CompletedChassisAssemblyId` int(11) NOT NULL AUTO_INCREMENT,
  `ChassisAssemblyId` int(11) NOT NULL,
  `ChassisAssemblyType` varchar(45) NOT NULL,
  `ChassisAssemblyWeight` int(5) NOT NULL,
  `ChassisAssemblyMaterial` varchar(45) NOT NULL,
  `ChassisAssemblyDate` varchar(45) NOT NULL,
  `EngineId` int(11) NOT NULL,
  `EnginePartId` int(11) NOT NULL,
  `TransmissionId` int(11) NOT NULL,
  `ElectronicPartId` int(11) NOT NULL,
  PRIMARY KEY (`CompletedChassisAssemblyId`)
) ENGINE=InnoDB AUTO_INCREMENT=5 DEFAULT CHARSET=latin1;
/*!40101 SET character_set_client = @saved_cs_client */;
```

--

-- Dumping data for table `completedchassisassembly`

--

```
LOCK TABLES `completedchassisassembly` WRITE;
/*!40000 ALTER TABLE `completedchassisassembly` DISABLE KEYS */;
INSERT INTO `completedchassisassembly` VALUES (1,48,'Luxury Sedan',1500,'Aluminium','2017-05-08',6,6,8,14),(2,49,'Luxury Truck',4000,'Aluminium','2017-10-12',9,9,4,15),(3,50,'Luxury Truck',4000,'Aluminium','2017-10-12',9,9,4,15),(4,51,'Luxury Truck',4000,'Aluminium','2017-10-12',9,9,4,15);
/*!40000 ALTER TABLE `completedchassisassembly` ENABLE KEYS */;
UNLOCK TABLES;
```

--



```
-- Table structure for table `completedfinalassembly`
```

```
--
```

```
DROP TABLE IF EXISTS `completedfinalassembly`;  
/*!40101 SET @saved_cs_client = @@character_set_client */;  
/*!40101 SET character_set_client = utf8 */;  
CREATE TABLE `completedfinalassembly` (  
  `CompletedFinalAssemblyId` int(11) NOT NULL AUTO_INCREMENT,  
  `FinalAssemblyId` int(11) NOT NULL,  
  `FinalAssemblyType` varchar(45) NOT NULL,  
  `FinalAssemblyWeight` int(5) NOT NULL,  
  `FinalAssemblyMaterial` varchar(45) NOT NULL,  
  `FinalAssemblyDate` varchar(45) NOT NULL,  
  `ChassisAssemblyId` varchar(45) NOT NULL,  
  `SoftTrimId` int(11) NOT NULL,  
  `HardwareId` int(11) NOT NULL,  
  `PaintId` int(11) NOT NULL,  
  `BodyPartId` int(11) NOT NULL,  
  PRIMARY KEY (`CompletedFinalAssemblyId`)  
) ENGINE=InnoDB AUTO_INCREMENT=9 DEFAULT CHARSET=latin1;  
/*!40101 SET character_set_client = @saved_cs_client */;
```

```
--
```

```
-- Dumping data for table `completedfinalassembly`
```

```
--
```

```
LOCK TABLES `completedfinalassembly` WRITE;  
/*!40000 ALTER TABLE `completedfinalassembly` DISABLE KEYS */;  
INSERT INTO `completedfinalassembly` VALUES (1,49,'Luxury Truck',4156,'Aluminium','2017-12-08','49',18,3,23,9),(8,50,'Old Base Truck',3000,'High Tensile Steel','2016-12-10','52',11,1,30,6);  
/*!40000 ALTER TABLE `completedfinalassembly` ENABLE KEYS */;  
UNLOCK TABLES;
```

```
--
```

```
-- Table structure for table `electronicpart`
```

```
--
```

```
DROP TABLE IF EXISTS `electronicpart`;  
/*!40101 SET @saved_cs_client = @@character_set_client */;  
/*!40101 SET character_set_client = utf8 */;  
CREATE TABLE `electronicpart` (  
  `ElectronicPartId` int(11) NOT NULL AUTO_INCREMENT,  
  `ElectronicPartPackageName` varchar(45) NOT NULL,  
  `ElectronicPartPackageWeight` int(5) NOT NULL,  
  `ElectronicPartPackageMaterial` varchar(45) NOT NULL,  
  PRIMARY KEY (`ElectronicPartId`)  
) ENGINE=InnoDB AUTO_INCREMENT=21 DEFAULT CHARSET=latin1;  
/*!40101 SET character_set_client = @saved_cs_client */;
```

```
--
```

```
-- Dumping data for table `electronicpart`
```

```
--
```

```

LOCK TABLES `electronicpart` WRITE;
/*!40000 ALTER TABLE `electronicpart` DISABLE KEYS */;
INSERT INTO `electronicpart` VALUES (1,'Base Hatchback',9,'Copper, Lead, PU Plastic'),(8,'Premium Hatchback',11,'Silver, Lead, PU Plastic'),(9,'Base Sedan',15,'Copper, Lead, PU Plastic'),(10,'Premium Sedan',17,'Silver, Lead, PU Plastic'),(11,'Base Coupe',10,'Copper, Lead, PU Plastic'),(12,'Premium Coupe',12,'Silver, Lead, PU Plastic'),(13,'Base Convertible',11,'Copper, Lead, PU Plastic'),(14,'Premium Convertible',13,'Silver, Lead, PU Plastic'),(15,'Base Wagon',16,'Copper, Lead, PU Plastic'),(16,'Premium Wagon',18,'Silver, Lead, PU Plastic'),(17,'Base Truck',15,'Copper, Lead, PU Plastic'),(18,'Premium Truck',17,'Silver, Lead, PU Plastic'),(19,'Base Limousine',28,'Copper, Lead, PU Plastic'),(20,'Premium Limousine',32,'Silver, Lead, PU Plastic');
/*!40000 ALTER TABLE `electronicpart` ENABLE KEYS */;
UNLOCK TABLES;

--
-- Table structure for table `engine`
--

DROP TABLE IF EXISTS `engine`;
/*!40101 SET @saved_cs_client = @@character_set_client */;
/*!40101 SET character_set_client = utf8 */;
CREATE TABLE `engine` (
  `EngineId` int(11) NOT NULL AUTO_INCREMENT,
  `EngineCode` varchar(45) NOT NULL,
  `EngineCapacity` varchar(45) NOT NULL,
  `EngineMaterial` varchar(45) NOT NULL,
  PRIMARY KEY (`EngineId`)
) ENGINE=InnoDB AUTO_INCREMENT=15 DEFAULT CHARSET=latin1;
/*!40101 SET character_set_client = @saved_cs_client */;

--
-- Dumping data for table `engine`
--

LOCK TABLES `engine` WRITE;
/*!40000 ALTER TABLE `engine` DISABLE KEYS */;
INSERT INTO `engine` VALUES
(1,'E07A','2.0L','Steel'),(2,'E07Z','3.2L','Aluminium'),(3,'P07A','5.6L','Aluminium'),(4,'B15C2','1.4L','Steel'),(5,'A20','4.0L','Cast Iron'),(6,'D15B4','5.6L','Aluminium'),(7,'D16Y1','6.2L','Cast Iron'),(8,'EB','7.0L','Steel'),(9,'F20A4','1.2L','Cast Iron'),(10,'2JZGTE','3.5L','Aluminium'),(11,'S65','2.2L','Steel'),(12,'LP56A1','2.5L','Aluminium'),(13,'F182W','1.0L','Aluminium'),(14,'G65ATT','2.9L','Steel');
/*!40000 ALTER TABLE `engine` ENABLE KEYS */;
UNLOCK TABLES;

--
-- Table structure for table `enginepart`
--

DROP TABLE IF EXISTS `enginepart`;
/*!40101 SET @saved_cs_client = @@character_set_client */;
/*!40101 SET character_set_client = utf8 */;
CREATE TABLE `enginepart` (
  `EnginePartId` int(11) NOT NULL AUTO_INCREMENT,

```

```
`EnginePartPackageName` varchar(45) NOT NULL,
`EnginePartPackageWeight` int(5) NOT NULL,
`EnginePartPackageMaterial` varchar(45) NOT NULL,
PRIMARY KEY (`EnginePartId`)
) ENGINE=InnoDB AUTO_INCREMENT=16 DEFAULT CHARSET=latin1;
/*!40101 SET character_set_client = @saved_cs_client */;

--
-- Dumping data for table `enginepart`
--

LOCK TABLES `enginepart` WRITE;
/*!40000 ALTER TABLE `enginepart` DISABLE KEYS */;
INSERT INTO `enginepart` VALUES (1,'E07A Package',15,'Forged Steel, High Carbon Steel,
Aluminium'),(2,'E07Z Package',22,'Forged Steel, High Carbon Steel, Aluminium'),(3,'P07A
Package',32,'Forged Steel, High Carbon Steel, Aluminium'),(4,'B15C2 Package',10,'Forged Steel, High
Carbon Steel, Aluminium'),(5,'A20 Package',17,'Forged Steel, High Carbon Steel,
Aluminium'),(6,'D15B4 Package',18,'Forged Steel, High Carbon Steel, Aluminium'),(7,'D16Y1
Package',36,'Forged Steel, High Carbon Steel, Aluminium'),(9,'F20A4 Package',12,'Forged Steel, High
Carbon Steel, Aluminium'),(10,'2JZGTE Package',24,'Forged Steel, High Carbon Steel,
Aluminium'),(11,'S65 Package',27,'Forged Steel, High Carbon Steel, Aluminium'),(12,'LP56A1
Package',19,'Forged Steel, High Carbon Steel, Aluminium'),(13,'F182W Package',26,'Forged Steel,
High Carbon Steel, Aluminium'),(14,'G65ATT Package',15,'Forged Steel, High Carbon Steel,
Aluminium'),(15,'EB Package',44,'Forged Steel, High Carbon Steel, Titanium');
/*!40000 ALTER TABLE `enginepart` ENABLE KEYS */;
UNLOCK TABLES;

--
-- Table structure for table `finalassembly`
--

DROP TABLE IF EXISTS `finalassembly`;
/*!40101 SET @saved_cs_client = @@character_set_client */;
/*!40101 SET character_set_client = utf8 */;
CREATE TABLE `finalassembly` (
  `FinalAssemblyId` int(11) NOT NULL AUTO_INCREMENT,
  `FinalAssemblyType` varchar(45) NOT NULL,
  `FinalAssemblyWeight` int(5) NOT NULL,
  `FinalAssemblyMaterial` varchar(45) NOT NULL,
  `FinalAssemblyDate` date NOT NULL,
  `ChassisAssemblyId` int(11) NOT NULL,
  `SoftTrimId` int(11) NOT NULL,
  `HardwareId` int(11) NOT NULL,
  `PaintId` int(11) NOT NULL,
  `BodyPartId` int(11) NOT NULL,
  PRIMARY KEY (`FinalAssemblyId`)
) ENGINE=InnoDB AUTO_INCREMENT=42 DEFAULT CHARSET=latin1;
/*!40101 SET character_set_client = @saved_cs_client */;

--
-- Dumping data for table `finalassembly`
--
```

```
LOCK TABLES `finalassembly` WRITE;
/*!40000 ALTER TABLE `finalassembly` DISABLE KEYS */;
INSERT INTO `finalassembly` VALUES (15,'Base Hatchback',777,'Steel & Aluminium','2018-04-05',15,1,1,28,1),(16,'Premium Hatchback',858,'Steel & Aluminium','2018-03-30',16,2,2,26,1),(17,'Base Sedan',1322,'Steel & Aluminium','2018-03-15',17,3,1,30,2),(18,'Premium Sedan',1453,'Steel & Aluminium','2018-02-14',18,4,2,19,2),(19,'Base Coupe',997,'Steel & Aluminium','2018-04-02',19,5,1,21,3),(20,'Premium Coupe',1108,'Steel & Aluminium','2018-03-30',20,6,2,22,3),(21,'Base Convertible',1208,'Steel & Aluminium','2018-04-01',21,7,1,23,4),(22,'Premium Convertible',1329,'Steel & Aluminium','2018-04-26',22,8,2,18,4),(23,'Base Wagon',1628,'Steel & Aluminium','2018-04-12',23,9,1,29,5),(29,'Premium Wagon',1709,'Steel & Aluminium','2018-04-20',29,10,2,29,5),(36,'Base Truck',2430,'Steel & Aluminium','2018-04-18',36,11,1,24,6),(40,'Base Limousine',1208,'Steel & Aluminium','2018-03-08',40,13,1,25,7),(41,'Premium Limousine',1208,'Steel & Aluminium','2018-04-29',41,14,2,17,7);
/*!40000 ALTER TABLE `finalassembly` ENABLE KEYS */;
UNLOCK TABLES;
```

```
--
-- Table structure for table `hardware`
--
```

```
DROP TABLE IF EXISTS `hardware`;
/*!40101 SET @saved_cs_client = @@character_set_client */;
/*!40101 SET character_set_client = utf8 */;
CREATE TABLE `hardware` (
  `HardwarePackageId` int(11) NOT NULL AUTO_INCREMENT,
  `HardwarePackageName` varchar(45) NOT NULL,
  `HardwarePackageWeight` int(5) NOT NULL,
  `HardwarePackageMaterial` varchar(45) NOT NULL,
  PRIMARY KEY (`HardwarePackageId`)
) ENGINE=InnoDB AUTO_INCREMENT=3 DEFAULT CHARSET=latin1;
/*!40101 SET character_set_client = @saved_cs_client */;
```

```
--
-- Dumping data for table `hardware`
--
```

```
LOCK TABLES `hardware` WRITE;
/*!40000 ALTER TABLE `hardware` DISABLE KEYS */;
INSERT INTO `hardware` VALUES (1,'Base Package',17,'PU Rubber, PPE Plastic, PVC Plastic'),(2,'Premium Package',38,'ABS Plastic, Mahogany, Stainless Steel');
/*!40000 ALTER TABLE `hardware` ENABLE KEYS */;
UNLOCK TABLES;
```

```
--
-- Table structure for table `paint`
--
```

```
DROP TABLE IF EXISTS `paint`;
/*!40101 SET @saved_cs_client = @@character_set_client */;
/*!40101 SET character_set_client = utf8 */;
CREATE TABLE `paint` (
  `PaintId` int(11) NOT NULL AUTO_INCREMENT,
  `PaintName` varchar(45) NOT NULL,
```

```

`PaintType` varchar(45) NOT NULL,
`BodyPartId` int(11) NOT NULL,
PRIMARY KEY (`PaintId`),
KEY `BodyPartId_idx` (`BodyPartId`),
CONSTRAINT `BodyPartId` FOREIGN KEY (`BodyPartId`) REFERENCES `bodypart`
(`BodyPartPackageId`) ON DELETE NO ACTION ON UPDATE NO ACTION
) ENGINE=InnoDB AUTO_INCREMENT=33 DEFAULT CHARSET=latin1;
/*!40101 SET character_set_client = @saved_cs_client */;

--
-- Dumping data for table `paint`
--

LOCK TABLES `paint` WRITE;
/*!40000 ALTER TABLE `paint` DISABLE KEYS */;
INSERT INTO `paint` VALUES (17,'Arancio Atlas','Metallic Red',7),(18,'Arancio Borealis','Metallic
Orange',4),(19,'Azzurro Thetis','Metallic Light Blue',2),(20,'Bianco Canopus','Metallic
White',1),(21,'Blu Cepheus','Metallic Blue',3),(22,'Nero Corsa','Metallic Black',3),(23,'Giallo
Corona','Metallic Yellow',4),(24,'Verde Mantis','Metallic Green',6),(25,'Arancio Borealis','Matte
Red',7),(26,'Arancio Ymir','Matte Orange',1),(27,'Azzurro Vega','Matte Light Blue',2),(28,'Bianco
Opalis','Matte White',1),(29,'Blu Celeste','Matte Blue',5),(30,'Nero Forza','Matte Black',2),(31,'Giallo
Maggio','Matte Yellow',3),(32,'Verde Itheca','Matte Green',4);
/*!40000 ALTER TABLE `paint` ENABLE KEYS */;
UNLOCK TABLES;

--
-- Table structure for table `softtrim`
--

DROP TABLE IF EXISTS `softtrim`;
/*!40101 SET @saved_cs_client = @@character_set_client */;
/*!40101 SET character_set_client = utf8 */;
CREATE TABLE `softtrim` (
  `SoftTrimId` int(11) NOT NULL AUTO_INCREMENT,
  `SoftTrimPackageName` varchar(45) NOT NULL,
  `SoftTrimPackageWeight` int(5) NOT NULL,
  `SoftTrimPackageMaterial` varchar(45) NOT NULL,
  PRIMARY KEY (`SoftTrimId`)
) ENGINE=InnoDB AUTO_INCREMENT=15 DEFAULT CHARSET=latin1;
/*!40101 SET character_set_client = @saved_cs_client */;

--
-- Dumping data for table `softtrim`
--

LOCK TABLES `softtrim` WRITE;
/*!40000 ALTER TABLE `softtrim` DISABLE KEYS */;
INSERT INTO `softtrim` VALUES (1,'Base Hatchback',20,'Cloth, PU Rubber, PPE Plastic'),(2,'Premium
Hatchback',30,'Leather, Suede, Metal/Wood'),(3,'Base Sedan',40,'Cloth, PU Rubber, PPE
Plastic'),(4,'Premium Sedan',50,'Leather, Suede, Metal/Wood'),(5,'Base Coupe',35,'Cloth, PU Rubber,
PPE Plastic'),(6,'Premium Coupe',45,'Leather, Suede, Metal/Wood'),(7,'Base Convertible',38,'Cloth,
PU Rubber, PPE Plastic'),(8,'Premium Convertible',48,'Leather, Suede, Metal/Wood'),(9,'Base
Wagon',41,'Cloth, PU Rubber, PPE Plastic'),(10,'Premium Wagon',51,'Leather, Suede,
```

```

Metal/Wood'),(11,'Base Truck',28,'Cloth, PU Rubber, PPE Plastic'),(12,'Premium Truck',38,'Leather,
Suede, Metal/Wood'),(13,'Base Limousine',60,'Cloth, PU Rubber, PPE Plastic'),(14,'Premium
Limousine',110,'Leather, Suede, Metal/Wood');
/*!40000 ALTER TABLE `softtrim` ENABLE KEYS */;
UNLOCK TABLES;

--
-- Table structure for table `transmission`
--

DROP TABLE IF EXISTS `transmission`;
/*!40101 SET @saved_cs_client = @@character_set_client */;
/*!40101 SET character_set_client = utf8 */;
CREATE TABLE `transmission` (
  `TransmissionId` int(11) NOT NULL AUTO_INCREMENT,
  `TransmissionCode` varchar(45) NOT NULL,
  `TransmissionMaterial` varchar(45) NOT NULL,
  PRIMARY KEY (`TransmissionId`)
) ENGINE=InnoDB AUTO_INCREMENT=12 DEFAULT CHARSET=latin1;
/*!40101 SET character_set_client = @saved_cs_client */;

--
-- Dumping data for table `transmission`
--

LOCK TABLES `transmission` WRITE;
/*!40000 ALTER TABLE `transmission` DISABLE KEYS */;
INSERT INTO `transmission` VALUES
(1,'1A7AT','Steel'),(2,'9D9AT','Aluminium'),(3,'7C5MT','Steel'),(4,'6Y7AT','Cast
Iron'),(5,'9Z5MT','Aluminium'),(6,'0Y9AT','Steel'),(7,'2T6MT','Steel'),(8,'9N6MT','Aluminium'),(9,'1Q3
AT','Cast Iron'),(10,'8B4AT','Steel'),(11,'1A7MT','Aluminium');
/*!40000 ALTER TABLE `transmission` ENABLE KEYS */;
UNLOCK TABLES;

--
-- Final view structure for view `5latestchassis`
--

/*!50001 DROP VIEW IF EXISTS `5latestchassis`*/;
/*!50001 SET @saved_cs_client = @@character_set_client */;
/*!50001 SET @saved_cs_results = @@character_set_results */;
/*!50001 SET @saved_col_connection = @@collation_connection */;
/*!50001 SET character_set_client = utf8 */;
/*!50001 SET character_set_results = utf8 */;
/*!50001 SET collation_connection = utf8_general_ci */;
/*!50001 CREATE ALGORITHM=UNDEFINED */
/*!50013 DEFINER=`root`@`localhost` SQL SECURITY DEFINER */
/*!50001 VIEW `5latestchassis` AS select `chassisassembly`.`ChassisAssemblyId` AS
`chassisassemblyid`,`chassisassembly`.`ChassisAssemblyType` AS
`chassisassemblytype`,`chassisassembly`.`ChassisAssemblyDate` AS
`chassisassemblydate`,`chassisassembly`.`EngineId` AS `engineid`,`chassisassembly`.`EnginePartId`
AS `enginepartid`,`chassisassembly`.`TransmissionId` AS

```

```

`transmissionid`,`chassisassembly`.`ElectronicPartId` AS `electronicpartid` from `chassisassembly`
order by `chassisassembly`.`ChassisAssemblyDate` desc limit 5 */;
/*!50001 SET character_set_client    = @saved_cs_client */;
/*!50001 SET character_set_results   = @saved_cs_results */;
/*!50001 SET collation_connection    = @saved_col_connection */;
--
-- Final view structure for view `5latestfinalassemblies`
--
/*!50001 DROP VIEW IF EXISTS `5latestfinalassemblies`*/;
/*!50001 SET @saved_cs_client        = @@character_set_client */;
/*!50001 SET @saved_cs_results       = @@character_set_results */;
/*!50001 SET @saved_col_connection   = @@collation_connection */;
/*!50001 SET character_set_client     = utf8 */;
/*!50001 SET character_set_results    = utf8 */;
/*!50001 SET collation_connection     = utf8_general_ci */;
/*!50001 CREATE ALGORITHM=UNDEFINED */
/*!50013 DEFINER=`root`@`localhost` SQL SECURITY DEFINER */
/*!50001 VIEW `5latestfinalassemblies` AS select `finalassembly`.`FinalAssemblyId` AS
`finalassemblyid`,`finalassembly`.`FinalAssemblyType` AS
`finalassemblytype`,`finalassembly`.`FinalAssemblyDate` AS
`finalassemblydate`,`finalassembly`.`SoftTrimId` AS `softtrimid`,`finalassembly`.`HardwareId` AS
`hardwareid`,`finalassembly`.`PaintId` AS `paintid`,`finalassembly`.`BodyPartId` AS `bodypartid` from
`finalassembly` order by `finalassembly`.`FinalAssemblyDate` desc limit 5 */;
/*!50001 SET character_set_client    = @saved_cs_client */;
/*!50001 SET character_set_results   = @saved_cs_results */;
/*!50001 SET collation_connection    = @saved_col_connection */;
--
-- Final view structure for view `allassemblydates`
--
/*!50001 DROP VIEW IF EXISTS `allassemblydates`*/;
/*!50001 SET @saved_cs_client        = @@character_set_client */;
/*!50001 SET @saved_cs_results       = @@character_set_results */;
/*!50001 SET @saved_col_connection   = @@collation_connection */;
/*!50001 SET character_set_client     = utf8 */;
/*!50001 SET character_set_results    = utf8 */;
/*!50001 SET collation_connection     = utf8_general_ci */;
/*!50001 CREATE ALGORITHM=UNDEFINED */
/*!50013 DEFINER=`root`@`localhost` SQL SECURITY DEFINER */
/*!50001 VIEW `allassemblydates` AS select `chassisassembly`.`ChassisAssemblyId` AS
`ChassisAssemblyId`,`finalassembly`.`FinalAssemblyId` AS
`FinalAssemblyId`,`chassisassembly`.`ChassisAssemblyDate` AS
`ChassisAssemblyDate`,`finalassembly`.`FinalAssemblyDate` AS `FinalAssemblyDate` from
(`chassisassembly` join `finalassembly`) where (`chassisassembly`.`ChassisAssemblyId` =
`finalassembly`.`FinalAssemblyId`) order by `chassisassembly`.`ChassisAssemblyId` */;
/*!50001 SET character_set_client    = @saved_cs_client */;
/*!50001 SET character_set_results   = @saved_cs_results */;
/*!50001 SET collation_connection    = @saved_col_connection */;
/*!40103 SET TIME_ZONE=@OLD_TIME_ZONE */;

/*!40101 SET SQL_MODE=@OLD_SQL_MODE */;
/*!40014 SET FOREIGN_KEY_CHECKS=@OLD_FOREIGN_KEY_CHECKS */;
/*!40014 SET UNIQUE_CHECKS=@OLD_UNIQUE_CHECKS */;
/*!40101 SET CHARACTER_SET_CLIENT=@OLD_CHARACTER_SET_CLIENT */;

```



```
/*!40101 SET CHARACTER_SET_RESULTS=@OLD_CHARACTER_SET_RESULTS */;  
/*!40101 SET COLLATION_CONNECTION=@OLD_COLLATION_CONNECTION */;  
/*!40111 SET SQL_NOTES=@OLD_SQL_NOTES */;
```