Automobile Backup Products Booking System

Milestone:MySQL Implementation

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SUMMARY:

We have created a database for the Automobile Backup Products booking system. It is a database for online booking services of automobile spare products focusing on the ‘cars’ segment from the automobile sector. The idea behind this model is to store the details of all the people, places and things that are involved and have a connection in the processes of the booking system.

We have created a database with a set of seven tables which are entities that play the most significant role in the system.

The tables are
1. Customer
2. Automobile dealers
3. Delivery Service Provider
4. Customer Bookings
5. Spare Products
6. Spare Orders
7. Works_with

Each of these tables either represents a relationship or an entity which can either be a person or a business product.

Customer – This table stores the customer details which are relevant to our processes like name, ID, address, date of birth and contact details. The customers in this table represent the customers who have an account in this system.

Automobile Dealer - This table lists the details of all the automobile dealers who supply the automobile products ordered by the customer. It includes information about the unique ID associated with each dealer, dealer name and contact details such as the dealer's email, dealer address, and dealer phone number.

Delivery Service Provider – This table deals with the information about the delivery service providers the dealers associate with, to ship the orders placed by the customers to the respective location. It stores details of the unique identifier related to each delivery service provider, name of the delivery service provider, delivery service provider email, phone number and also the count of the number of deliveries each delivery service provider has handled so far.

Customer Bookings – This table contains information on the orders that have been placed by the customer. It includes details like Order ID, Order date, Latest delivery date and Delivery Status of the respective order. Order ID is a value which has been assigned to uniquely identify a spare product order.

Spare Products – This table provides a detailed description of all the spare products which are available for purchase along with the details of how much quantity of the product has been purchased to date.

Spare Orders – This table includes details like order ID, product ID, product quantity and total price of each of the products ordered by the customer. It displays the list of products ordered by the customer for each order.

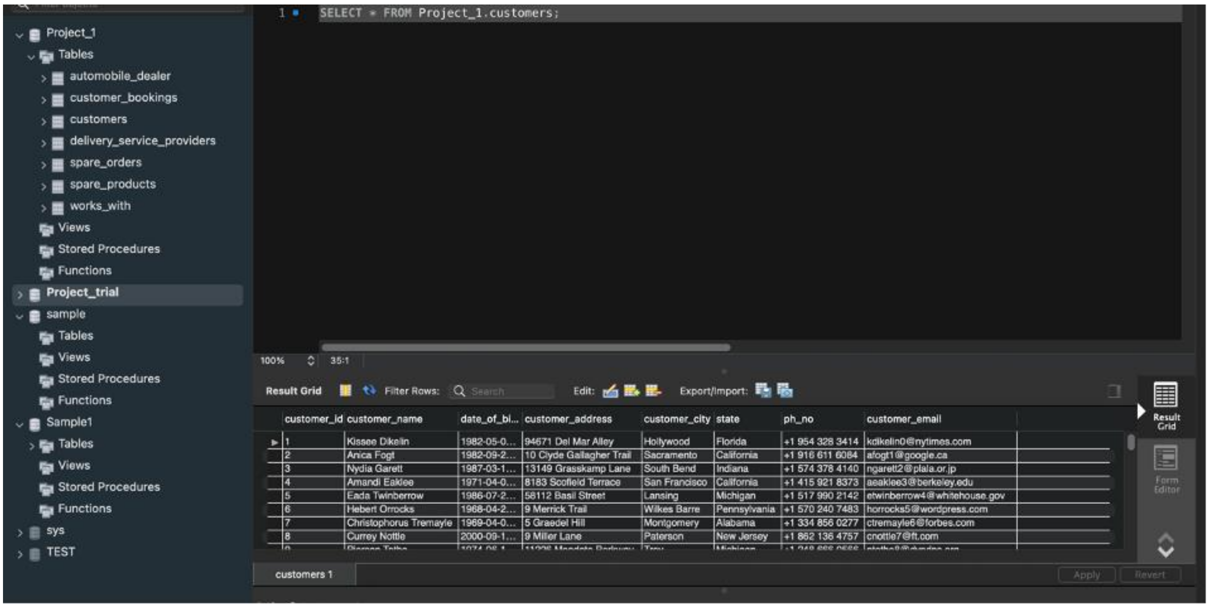
Works_with– This is a table which acts as a relationship between Automobile dealers and Delivery service providers. It has the Dealer ID, Delivery ID, Product ID and product weight.

IMPLEMENTATION OF QUERIES AND OUTPUT:

```
CREATE TABLE `Project_1`.`customers` (
  `customer_id` INT NOT NULL,
  `customer_name` VARCHAR(45) NULL,
  `date_of_birth` DATETIME NULL,
  `customer_address` VARCHAR(45) NULL,
  `customer_city` VARCHAR(45) NULL,
  `state` VARCHAR(45) NULL,
  `ph_no` VARCHAR(45) NULL,
  `customer_email` VARCHAR(45) NULL,
  PRIMARY KEY (`customer_id`));
```

After loading the dataset using LOAD DATA LOCAL INFILE command into the ‘customers’ table.

```
SELECT * FROM Project_1.customers;
```



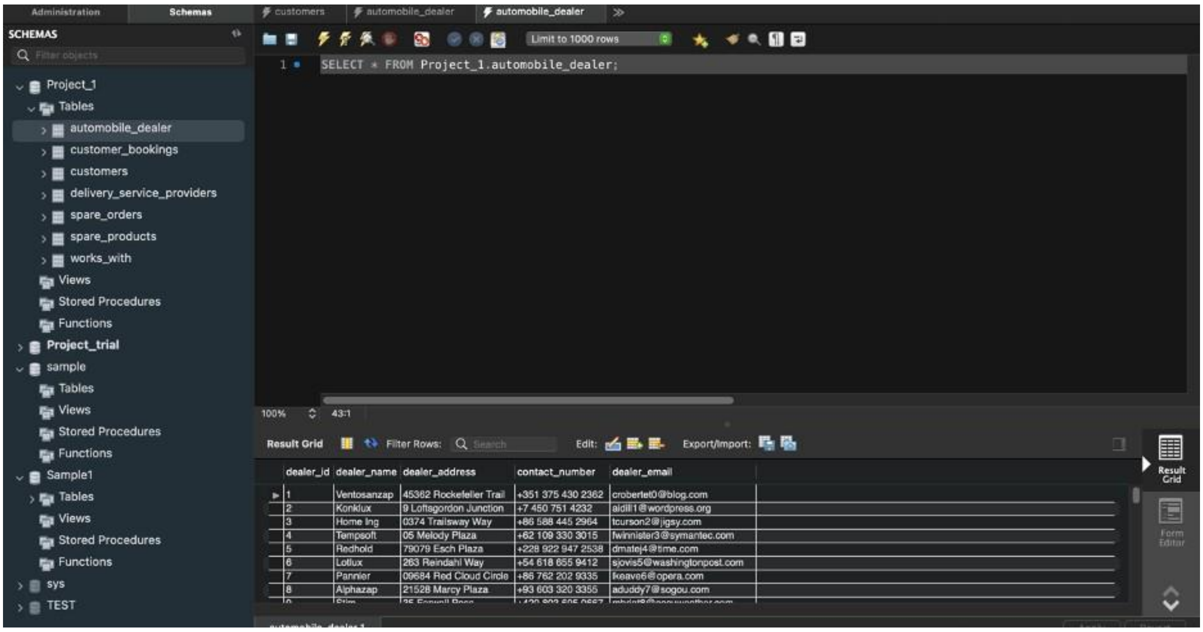
```
SELECT * FROM Project_1.customers;
```

customer_id	customer_name	date_of_bi...	customer_address	customer_city	state	ph_no	customer_email
1	Kissee Dikelin	1982-05-0...	94671 Del Mar Alley	Hollywood	Florida	+1 954 328 3414	kdikelin0@nytimes.com
2	Anica Fogt	1982-09-2...	10 Clyde Gallagher Trail	Sacramento	California	+1 916 611 6084	afogt1@google.ca
3	Nydia Garett	1987-03-1...	13149 Grasskamp Lane	South Bend	Indiana	+1 574 378 4140	ngarett2@plala.or.jp
4	Amandi Eaklee	1971-04-0...	8183 Scofield Terrace	San Francisco	California	+1 415 921 8373	aeaklee3@berkeley.edu
5	Eada Twinberrow	1986-07-2...	58112 Basil Street	Lansing	Michigan	+1 517 990 2142	etwinberrow4@whitehouse.gov
6	Hebert Orrocks	1968-04-2...	9 Merrick Trail	Wilkes Barre	Pennsylvania	+1 570 240 7483	horrocks5@wordpress.com
7	Christophorus Tremayle	1969-04-0...	5 Graedel Hill	Montgomery	Alabama	+1 334 856 0277	ctremayle6@forbes.com
8	Currey Nottle	2000-09-1...	9 Miller Lane	Paterson	New Jersey	+1 862 136 4757	cnottle7@ft.com

```
CREATE TABLE `Project_1`.`automobile_dealer` (
  `dealer_id` INT NOT NULL,
  `dealer_name` VARCHAR(45) NULL,
  `dealer_address` VARCHAR(45) NULL,
  `contact_number` VARCHAR(45) NULL,
  `dealer_email` VARCHAR(45) NULL,
  PRIMARY KEY (`dealer_id`));
```

After loading the dataset using LOAD DATA LOCAL INFILE command into the 'automobile_dealer' table.

```
SELECT * FROM Project_1.automobile_dealer;
```



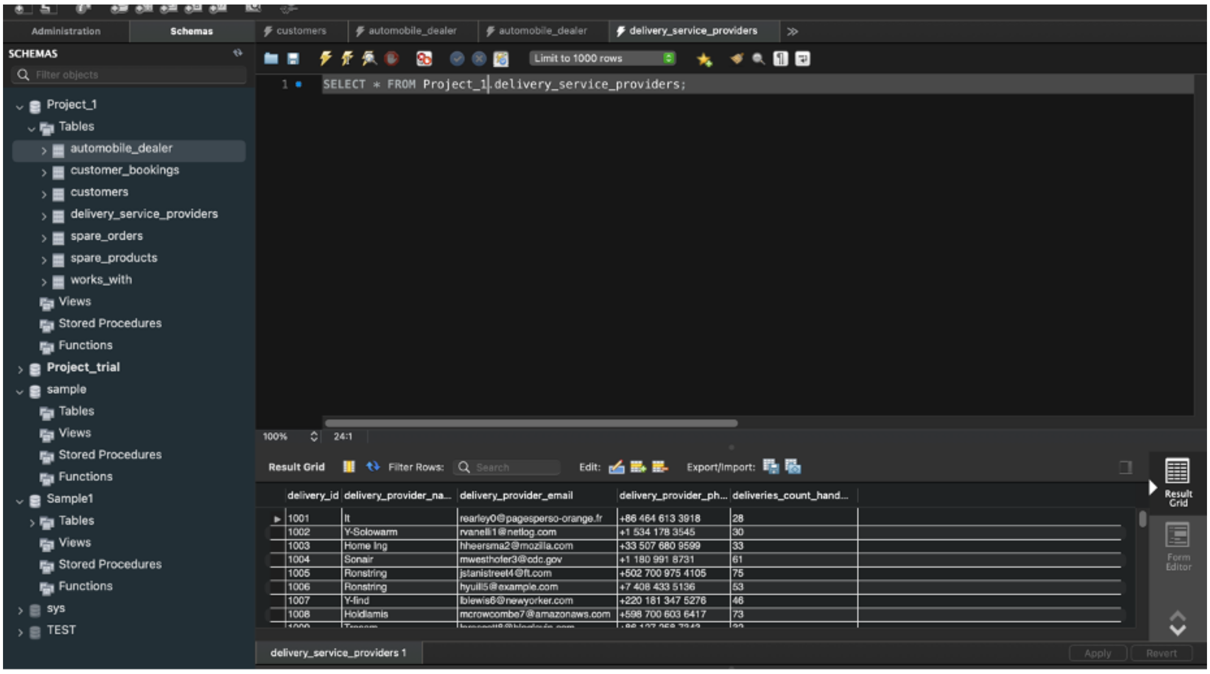
```
SELECT * FROM Project_1.automobile_dealer;
```

dealer_id	dealer_name	dealer_address	contact_number	dealer_email
1	Ventosanzap	45362 Rockefeller Trail	+351 375 430 2362	crobertet0@blog.com
2	Konklux	9 Loftsgordon Junction	+7 450 751 4232	aidill1@wordpress.org
3	Home Ing	0374 Trailsway Way	+86 588 445 2964	tcurson2@jigsy.com
4	Tempsoft	05 Melody Plaza	+62 109 330 3015	fwinnister3@symantec.com
5	Redhold	79079 Esch Plaza	+228 922 947 2538	dmatej4@time.com
6	Lotlux	263 Reindahl Way	+54 618 655 9412	sjovis5@washingtonpost.com
7	Pannier	09684 Red Cloud Circle	+86 762 202 9335	lkeave6@opera.com
8	Alphazap	21528 Marcy Plaza	+93 603 320 3355	aduddy7@sogou.com
9	Stim	[illegible]	[illegible]	[illegible]

```
CREATE TABLE `Project_1`.` delivery_service_provider` (
  `delivery_id` INT NOT NULL,
  `delivery_provider_name` VARCHAR(45) NULL,
  `delivery_provider_email` VARCHAR(45) NULL,
  `delivery_provider_phno` VARCHAR(45) NULL,
  `deliveries_count_handled` INT NULL,
  PRIMARY KEY (`delivery_id`));
```

After loading the dataset using LOAD DATA LOCAL INFILE command into the 'delivery_service_provider' table.

```
SELECT * FROM Project_1.delivery_service_provider;
```



```
SELECT * FROM Project_1.delivery_service_providers;
```

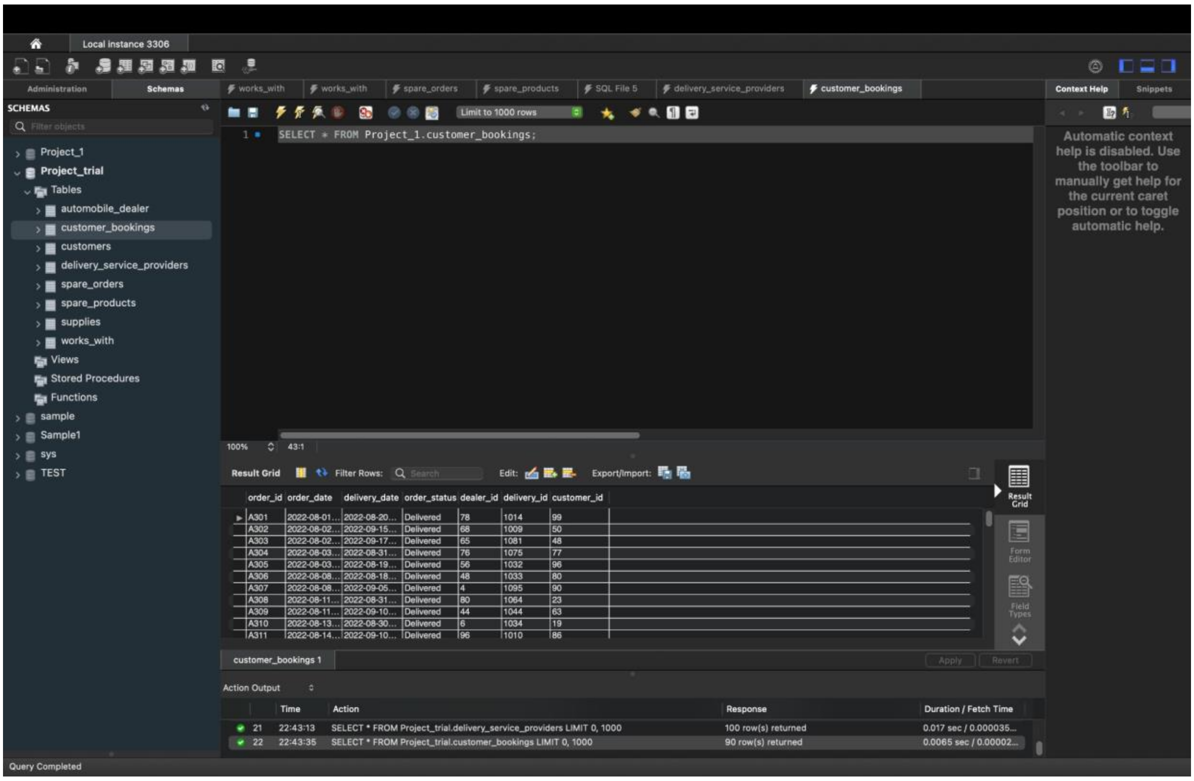
delivery_id	delivery_provider_na...	delivery_provider_email	delivery_provider_ph...	deliveries_count_hand...
1001	It	rearley0@pagesperso-orange.fr	+86 464 613 3918	28
1002	Y-Solowarm	rvanelli1@netlog.com	+1 534 178 3545	30
1003	Home Ing	hheersma2@mozilla.com	+33 507 680 9599	33
1004	Sonair	mwesthofer3@cdc.gov	+1 180 991 8731	61
1005	Ronstring	jstanistreet4@ft.com	+502 700 975 4105	75
1006	Ronstring	hyuill5@example.com	+7 408 433 5136	53
1007	Y-find	lblewis6@newyorker.com	+220 181 347 5276	46
1008	Holdlamis	mcrowcombe7@amazonaws.com	+598 700 603 6417	73

```
CREATE TABLE `Project_1`.`customer_bookings` (
  `order_id` VARCHAR(10) NOT NULL,
  `order_date` DATETIME NOT NULL,
  `delivery_date` DATETIME NOT NULL,
  `order_status` VARCHAR(45) NULL,
  `dealer_id` INT NOT NULL,
  `delivery_id` INT NOT NULL,
  `customer_id` INT NOT NULL,
  PRIMARY KEY (`order_id`),
  INDEX `dealer_id_idx` (`dealer_id` ASC) VISIBLE,
  INDEX `delivery_id_idx` (`delivery_id` ASC) VISIBLE,
  INDEX `customer_id_idx` (`customer_id` ASC) VISIBLE,
  CONSTRAINT `dealer_id1`
      FOREIGN KEY (`dealer_id`)
      REFERENCES `Project_1`.`automobile_dealer` (`dealer_id`)
      ON DELETE NO ACTION
      ON UPDATE NO ACTION,
  CONSTRAINT `delivery_id1`
      FOREIGN KEY (`delivery_id`)
      REFERENCES `Project_1`.`delivery_service_providers` (`delivery_id`)
      ON DELETE NO ACTION
      ON UPDATE NO ACTION,
  CONSTRAINT `customer_id1`
      FOREIGN KEY (`customer_id`)
      REFERENCES `Project_1`.`customers` (`customer_id`)
      ON DELETE NO ACTION
```

```
        ON UPDATE NO ACTION);
```

After loading the dataset using LOAD DATA LOCAL INFILE command into the ‘customer_bookings’ table.

```
SELECT * FROM Project_1.customer_bookings;
```



```
SELECT * FROM Project_1.customer_bookings;
```

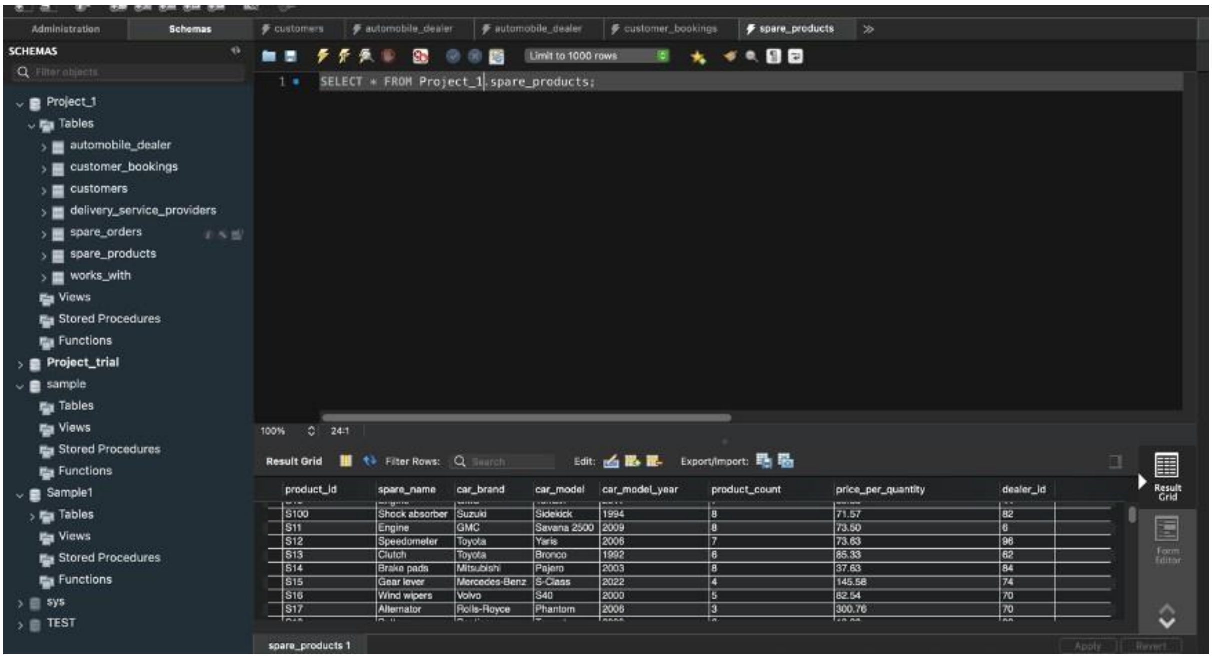
order_id	order_date	delivery_date	order_status	dealer_id	delivery_id	customer_id
A301	2022-08-01...	2022-08-20...	Delivered	78	1014	99
A302	2022-08-02...	2022-09-15...	Delivered	68	1009	50
A303	2022-08-02...	2022-09-17...	Delivered	65	1081	48
A304	2022-08-03...	2022-08-31...	Delivered	76	1075	77
A305	2022-08-03...	2022-08-19...	Delivered	56	1032	96
A306	2022-08-08...	2022-08-18...	Delivered	48	1033	80
A307	2022-08-08...	2022-09-05...	Delivered	4	1095	90
A308	2022-08-11...	2022-08-31...	Delivered	80	1064	23
A309	2022-08-11...	2022-09-10...	Delivered	44	1044	63
A310	2022-08-13...	2022-08-30...	Delivered	6	1034	19
A311	2022-08-14...	2022-09-10...	Delivered	96	1010	86

	Time	Action	Response	Duration / Fetch Time
21	22:43:13	SELECT * FROM Project_trial.delivery_service_providers LIMIT 0, 1000	100 row(s) returned	0.017 sec / 0.000035...
22	22:43:35	SELECT * FROM Project_trial.customer_bookings LIMIT 0, 1000	90 row(s) returned	0.0065 sec / 0.00002...

```
CREATE TABLE `Project_1`.`spare_products` (
  `product_id` VARCHAR(10) NOT NULL,
  `spare_name` VARCHAR(45) NOT NULL,
  `car_brand` VARCHAR(45) NOT NULL,
  `car_model` VARCHAR(45) NOT NULL,
  `car_model_year` VARCHAR(45) NOT NULL,
  `product_count` INT NOT NULL,
  `price_per_quantity` DECIMAL(5,2) NOT NULL,
  `dealer_id` INT NOT NULL,
  PRIMARY KEY (`product_id`),
  INDEX `dealer_id_idx` (`dealer_id` ASC) VISIBLE,
  CONSTRAINT `dealer_id2`
        FOREIGN KEY (`dealer_id`)
        REFERENCES `Project_1`.`automobile_dealer` (`dealer_id`)
        ON DELETE NO ACTION
        ON UPDATE NO ACTION);
```

After loading the dataset using LOAD DATA LOCAL INFILE command into the ‘spare_products’ table.

```
SELECT * FROM Project_1.spare_products;
```



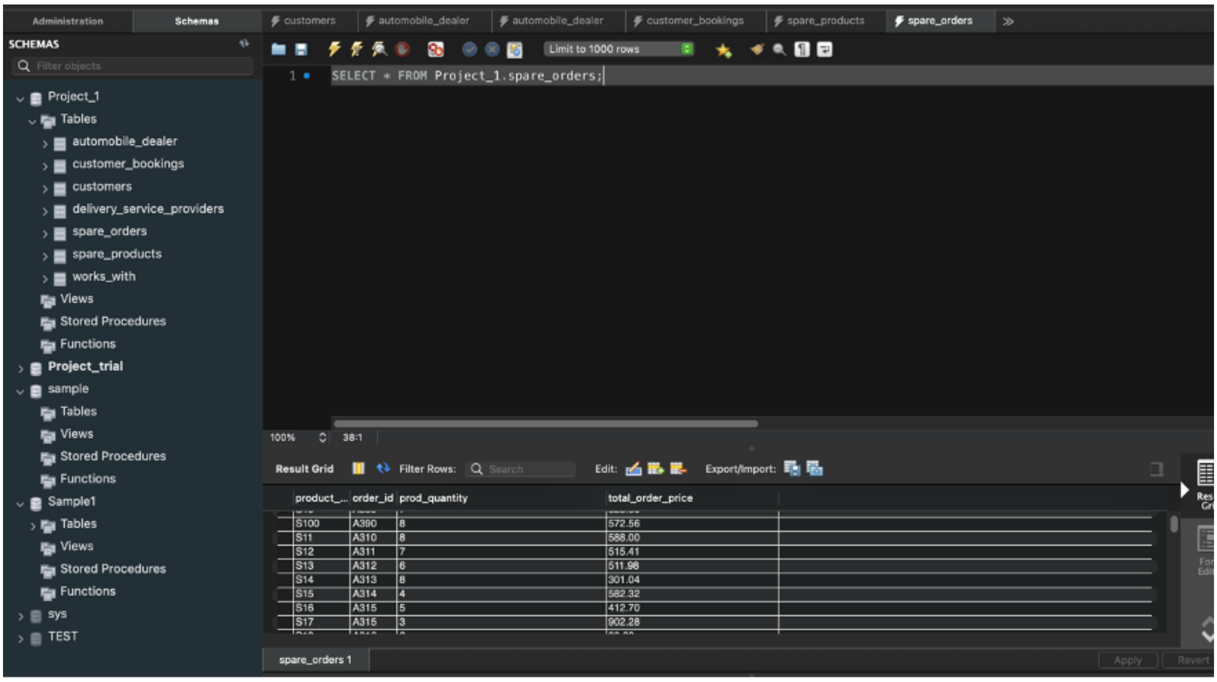
```
SELECT * FROM Project_1.spare_products;
```

product_id	spare_name	car_brand	car_model	car_model_year	product_count	price_per_quantity	dealer_id
S100	Shock absorber	Suzuki	Sidekick	1994	8	71.57	82
S11	Engine	GMC	Savana 2500	2009	8	73.50	6
S12	Speedometer	Toyota	Yaris	2006	7	73.63	96
S13	Clutch	Toyota	Bronco	1992	6	85.33	62
S14	Brake pads	Mitsubishi	Pajero	2003	8	37.63	84
S15	Gear lever	Mercedes-Benz	S-Class	2022	4	145.58	74
S16	Wind wipers	Volvo	S40	2000	5	62.54	70
S17	Alternator	Rolls-Royce	Phantom	2006	3	300.76	70

```
CREATE TABLE `Project_1`.`spare_orders` (
  `product_id` VARCHAR(10) NOT NULL,
  `order_id` VARCHAR(45) NOT NULL,
  `product_quantity` INT NOT NULL,
  `total_order_price` DECIMAL(5,2) NULL,
  PRIMARY KEY (`product_id`, `order_id`),
  INDEX `order_id_idx` (`order_id` ASC) VISIBLE,
  CONSTRAINT `product_id_so`
          FOREIGN KEY (`product_id`)
          REFERENCES `Project_1`.`spare_products` (`product_id`)
          ON DELETE NO ACTION
          ON UPDATE NO ACTION,
  CONSTRAINT `order_id_so`
          FOREIGN KEY (`order_id`)
          REFERENCES `Project_1`.`customer_bookings` (`order_id`)
          ON DELETE NO ACTION
          ON UPDATE NO ACTION);
```

After loading the dataset using LOAD DATA LOCAL INFILE command into the ‘spare_orders’ table.

```
SELECT * FROM Project_1.spare_orders;
```



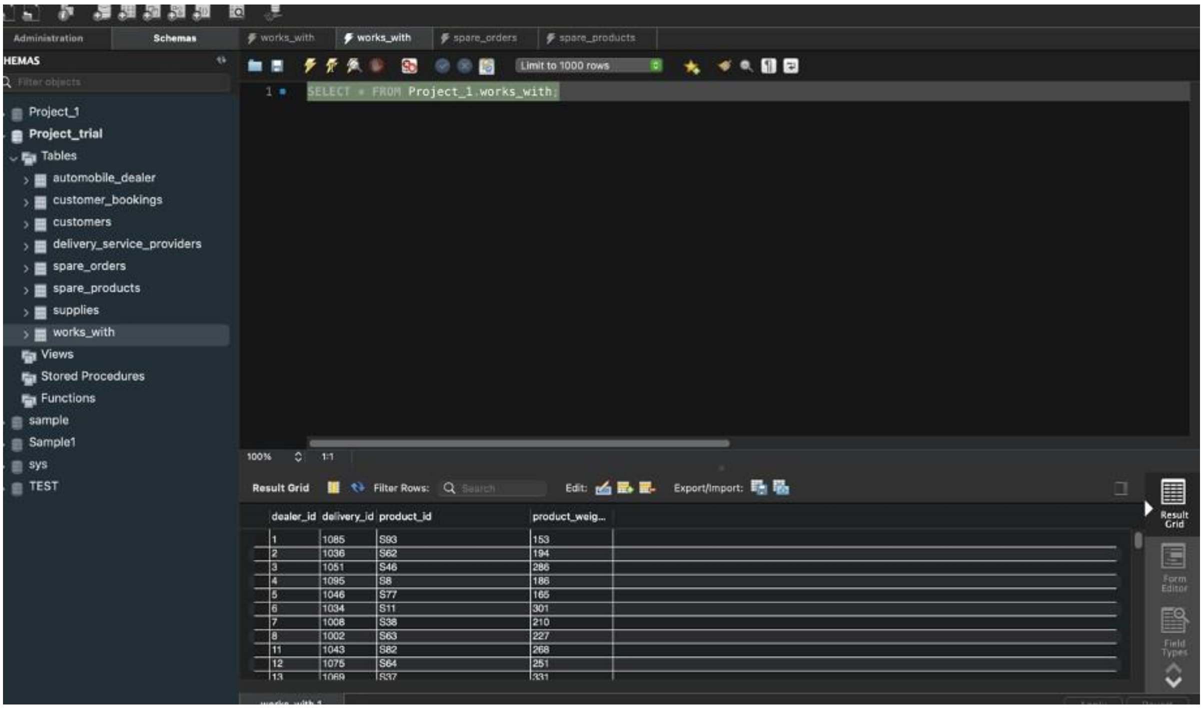
```
SELECT * FROM Project_1.spare_orders;
```

product_...	order_id	prod_quantity	total_order_price
S100	A390	8	572.56
S11	A310	8	588.00
S12	A311	7	515.41
S13	A312	6	511.98
S14	A313	8	301.04
S15	A314	4	582.32
S16	A315	5	412.70
S17	A315	3	902.28

```
CREATE TABLE `Project_1`.`works_with` (
  `dealer_id` INT NOT NULL,
  `delivery_id` INT NOT NULL,
  `product_id` VARCHAR(10) NOT NULL,
  `product_weight` INT NULL,
  PRIMARY KEY (`dealer_id`, `delivery_id`, `product_id`),
  INDEX `delivery_id_idx` (`delivery_id` ASC) VISIBLE,
  CONSTRAINT `dealer_id`
          FOREIGN KEY (`dealer_id`)
          REFERENCES `Project_1`.`automobile_dealer` (`dealer_id`)
          ON DELETE NO ACTION
          ON UPDATE NO ACTION,
  CONSTRAINT `delivery_id`
          FOREIGN KEY (`delivery_id`)
          REFERENCES `Project_1`.`delivery_service_providers` (`delivery_id`)
          ON DELETE NO ACTION
          ON UPDATE NO ACTION,
CONSTRAINT `product_id1`
          FOREIGN KEY (`product_id`)
          REFERENCES `Project_1`.`spare_products (`product_id`)
          ON DELETE NO ACTION
          ON UPDATE NO ACTION);
```

After loading the dataset using LOAD DATA LOCAL INFILE command into the ‘works_with’ table.

SELECT * FROM Project_1.works_with;



```
SELECT * FROM Project_1.works_with;
```

dealer_id	delivery_id	product_id	product_weig...
1	1085	S93	153
2	1036	S62	194
3	1051	S46	286
4	1095	S8	186
5	1046	S77	165
6	1034	S11	301
7	1008	S38	210
8	1002	S63	227
11	1043	S82	268
12	1075	S64	251
13	1069	S37	331