

MySQL queries

In this document, you have to write the create table and the load table queries used to create the following tables:

1. "users" table

```
CREATE TABLE `users` (  
  `id` varchar(1000) NOT NULL,  
  `age` int(100) NOT NULL,  
  `gender` varchar(50) NOT NULL,  
  `internet_usage` varchar(100) NOT NULL,  
  `income_bucket` varchar(100) NOT NULL,  
  `user_agent_string` varchar(1000) NOT NULL,  
  `device_type` varchar(1000) NOT NULL,  
  `websites` varchar(1000) NOT NULL,  
  `movies` varchar(1000) NOT NULL,  
  `music` varchar(1000) NOT NULL,  
  `programs` varchar(1000) NOT NULL,  
  `books` varchar(1000) NOT NULL,  
  `negatives` varchar(4000) NOT NULL,  
  `positives` varchar(4000) NOT NULL,  
  PRIMARY KEY (`id`)  
) ENGINE=InnoDB DEFAULT CHARSET=utf8;
```

2. “ads” table

```
CREATE TABLE `ads` (  
  `text` text NOT NULL,  
  `category` varchar(1000) NOT NULL,  
  `keywords` varchar(4000) NOT NULL,  
  `campaign_id` varchar(500) NOT NULL,  
  `status` varchar(500) NOT NULL,  
  `target_gender` varchar(1000) NOT NULL,  
  `target_age_start` int(1) NOT NULL,  
  `target_age_end` int(100) NOT NULL,  
  `target_city` varchar(1000) NOT NULL,  
  `target_state` varchar(1000) NOT NULL,  
  `target_country` varchar(1000) NOT NULL,  
  `target_income_bucket` varchar(1000) NOT NULL,  
  `target_device` varchar(1000) NOT NULL,  
  `cpc` double NOT NULL,  
  `cpa` double NOT NULL,  
  `cpm` double NOT NULL,  
  `budget` double NOT NULL,  
  `current_slot_budget` double NOT NULL,  
  `date_range_start` varchar(1000) NOT NULL,  
  `date_range_end` varchar(1000) NOT NULL,  
  `time_range_start` varchar(1000) NOT NULL,  
  `time_range_end` varchar(1000) NOT NULL,
```

```
PRIMARY KEY (`campaign_id`)  
) ENGINE=InnoDB DEFAULT CHARSET=utf8;
```

#alter ads table to save emoji

```
ALTER TABLE  
  
`ads`  
  
CONVERT TO CHARACTER SET utf8mb4  
  
COLLATE utf8mb4_unicode_ci;
```

3. "served_ads" table

```
CREATE TABLE `served_ads` (  
  
`request_id` varchar(1000) NOT NULL,  
  
`campaign_id` varchar(1000) NOT NULL,  
  
`user_id` varchar(1000) DEFAULT NULL,  
  
`auction_cpm` double NOT NULL,  
  
`auction_cpc` double NOT NULL,  
  
`auction_cpa` double NOT NULL,  
  
`target_age_range` varchar(1000) NOT NULL,  
  
`target_location` varchar(1000) NOT NULL,  
  
`target_gender` varchar(1000) NOT NULL,  
  
`target_income_bucket` varchar(1000) NOT NULL,  
  
`target_device_type` varchar(1000) NOT NULL,  
  
`campaign_start_time` varchar(1000) NOT NULL,  
  
`campaign_end_time` varchar(1000) NOT NULL,  
  
`timestamp` timestamp NOT NULL,
```

```
PRIMARY KEY (`request_id`)  
) ENGINE=InnoDB DEFAULT CHARSET=utf8;
```

#ad index for performance

```
ALTER TABLE server_ads ADD INDEX (campaign_id);
```

```
ALTER TABLE server_ads ADD INDEX (user_id);
```

4. Query to load the users data

```
LOAD data local infile '~/capstone/users_500k.csv' INTO TABLE users fields  
terminated by '|' IGNORE 1 LINES;
```