Topic ideas

LAM-duh: Xuliang Deng, Leah Okamura, Megan Richards

Update date

Data Set 1 - XULIANG

Introduction and Data

(Introduce and discuss data here) "Ask a Manager Salary" https://github.com/rfordatascience/tidytuesday /blob/master/data/2021/2021-05-18/readme.md

This data is from the salary survey to managers. The information included in the data can be seen from the github link above. Since some data includes N/A or characters, we need to clean the data at the beginning for sure. ## Research questions

(Discuss research questions here) I would like to see how manager salary is influenced or differs depending on other factors such as places managers live in, age, years in the job, highest level of education, gender, industry, and race. Since the data is not clean, for instance for race, we can only compare white to anything else. Race can be "African American or Asian American" and it might be hard to filter data.

Data Set 2 - MEGAN

Introduction and Data

(Introduce and discuss data here)

Research questions

(Discuss research questions here)

Data Set 3 - LEAH

Introduction and Data

The source of the dataset is Tiny Tuesday, https://github.com/rfordatascience/tidytuesday/blob/master/d ata/2020/2020-02-11/readme.md. This data set comes from an open hotel booking demand dataset from Antonio, Almeida and Nunes, 2019. It is sourced from this study https://www.sciencedirect.com/science/arti cle/pii/S2352340918315191#f0010. Due to the dataset being over 100,000 observations, we have limited the observations to be only hotels from the US. The general characteristics being measured in the data are the different aspects of booking and staying at a hotel. For example, out of the 32 variables, some of the ones we find great interest in are hotel type, reserved room type, assigned room type, company, meal, number of adults/children/babies, the average daily rate or daily cost, and the reservation status.

Research questions

A research question we are interested in is how do factors such as type of hotel and type of guest affect the average daily rate for a hotel. We would also be interested in seeing how stays in the weekend or the weekday

may affect the average daily rate for a hotel, and if they differ between the two hotel types, City and Resort hotels.

Glimpse of data sets

Data set 1 - XULIANG

```
## Rows: 26,232
## Columns: 18
## $ timestamp                                <chr> "4/27/2021 11:02:10", "4/27/2~
## $ how_old_are_you                          <chr> "25-34", "25-34", "25-34", "2~
## $ industry                                 <chr> "Education (Higher Education)~
## $ job_title                                <chr> "Research and Instruction Lib~
## $ additional_context_on_job_title          <chr> NA, NA, NA, NA, NA, NA, NA, "~
## $ annual_salary                            <dbl> 55000, 54600, 34000, 62000, 6~
## $ other_monetary_comp                      <dbl> 0, 4000, NA, 3000, 7000, NA, ~
## $ currency                                 <chr> "USD", "GBP", "USD", "USD", "~
## $ currency_other                           <chr> NA, NA, NA, NA, NA, NA, NA, N~
## $ additional_context_on_income             <chr> NA, NA, NA, NA, NA, NA, NA, N~
## $ country                                  <chr> "United States", "United King~
## $ state                                    <chr> "Massachusetts", NA, "Tenness~
## $ city                                     <chr> "Boston", "Cambridge", "Chatt~
## $ overall_years_of_professional_experience <chr> "5-7 years", "8 - 10 years", ~
## $ years_of_experience_in_field             <chr> "5-7 years", "5-7 years", "2 ~
## $ highest_level_of_education_completed      <chr> "Master's degree", "College d~
## $ gender                                   <chr> "Woman", "Non-binary", "Woman~
## $ race                                     <chr> "White", "White", "White", "W~
```

Data set 2 - MEGAN

Data set 3 - LEAH

```
## Rows: 2,097
## Columns: 32
## $ hotel                          <chr> "Resort Hotel", "Resort Hotel", "Resort~
## $ is_canceled                    <dbl> 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, ~
## $ lead_time                      <dbl> 68, 14, 10, 9, 51, 51, 98, 88, 10, 42, ~
## $ arrival_date_year              <dbl> 2015, 2015, 2015, 2015, 2015, 2015, 201~
## $ arrival_date_month             <chr> "July", "July", "July", "July", "July",~
## $ arrival_date_week_number       <dbl> 27, 27, 27, 27, 28, 28, 28, 28, 28, 29,~
## $ arrival_date_day_of_month      <dbl> 1, 2, 3, 3, 6, 6, 6, 7, 10, 13, 16, 28,~
## $ stays_in_weekend_nights        <dbl> 0, 0, 0, 0, 1, 1, 1, 0, 0, 1, 0, 0, 2, ~
## $ stays_in_week_nights           <dbl> 4, 2, 2, 1, 3, 3, 1, 4, 1, 2, 1, 1, 8, ~
## $ adults                         <dbl> 2, 2, 2, 2, 2, 3, 2, 3, 2, 2, 2, 2, 2, ~
## $ children                       <dbl> 0, 0, 2, 0, 0, 0, 0, 0, 0, 0, 2, 1, 0, ~
## $ babies                         <dbl> 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, ~
## $ meal                           <chr> "BB", "BB", "BB", "BB", "BB", "BB", "BB~
## $ country                        <chr> "USA", "USA", "USA", "USA", "USA", "USA~
## $ market_segment                 <chr> "Online TA", "Online TA", "Online TA", ~
## $ distribution_channel           <chr> "TA/TO", "TA/TO", "TA/TO", "TA/TO", "TA~
## $ is_repeated_guest              <dbl> 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, ~
## $ previous_cancellations         <dbl> 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, ~
## $ previous_bookings_not_canceled <dbl> 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, ~
## $ reserved_room_type             <chr> "D", "A", "G", "C", "G", "G", "D", "D",~
```

```
## $ assigned_room_type          <chr> "E", "C", "H", "C", "G", "G", "F", "E",~
## $ booking_changes             <dbl> 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 1, 0, 1, ~
## $ deposit_type                <chr> "No Deposit", "No Deposit", "No Deposit~
## $ agent                       <chr> "240", "242", "240", "241", "241", "241~
## $ company                     <chr> "NULL", "NULL", "NULL", "NULL", "NULL",~
## $ days_in_waiting_list        <dbl> 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, ~
## $ customer_type               <chr> "Transient", "Transient", "Transient", ~
## $ adr                         <dbl> 97.00, 98.00, 153.00, 94.71, 117.81, 11~
## $ required_car_parking_spaces <dbl> 0, 0, 1, 0, 1, 0, 1, 0, 0, 1, 1, 0, 0, ~
## $ total_of_special_requests   <dbl> 3, 1, 0, 0, 2, 2, 1, 1, 0, 0, 1, 1, 1, ~
## $ reservation_status          <chr> "Check-Out", "Check-Out", "Check-Out", ~
## $ reservation_status_date     <chr> "7/5/15", "7/4/15", "7/5/15", "7/4/15",~
```