The background of the slide is a dense field of 3D-rendered numbers in various shades of blue and white. The numbers are of different sizes and are scattered across the entire frame, creating a sense of depth and movement. Some numbers are in the foreground, appearing larger and more detailed, while others are in the background, appearing smaller and more faded. The overall effect is a vibrant, abstract pattern of digits.

The impact of women's driving on “WOSUL” program

Created by:

Eng.Hessah Abdulaziz Alnajem



Agenda:

- Analysis of the project.
- MVP Goal.

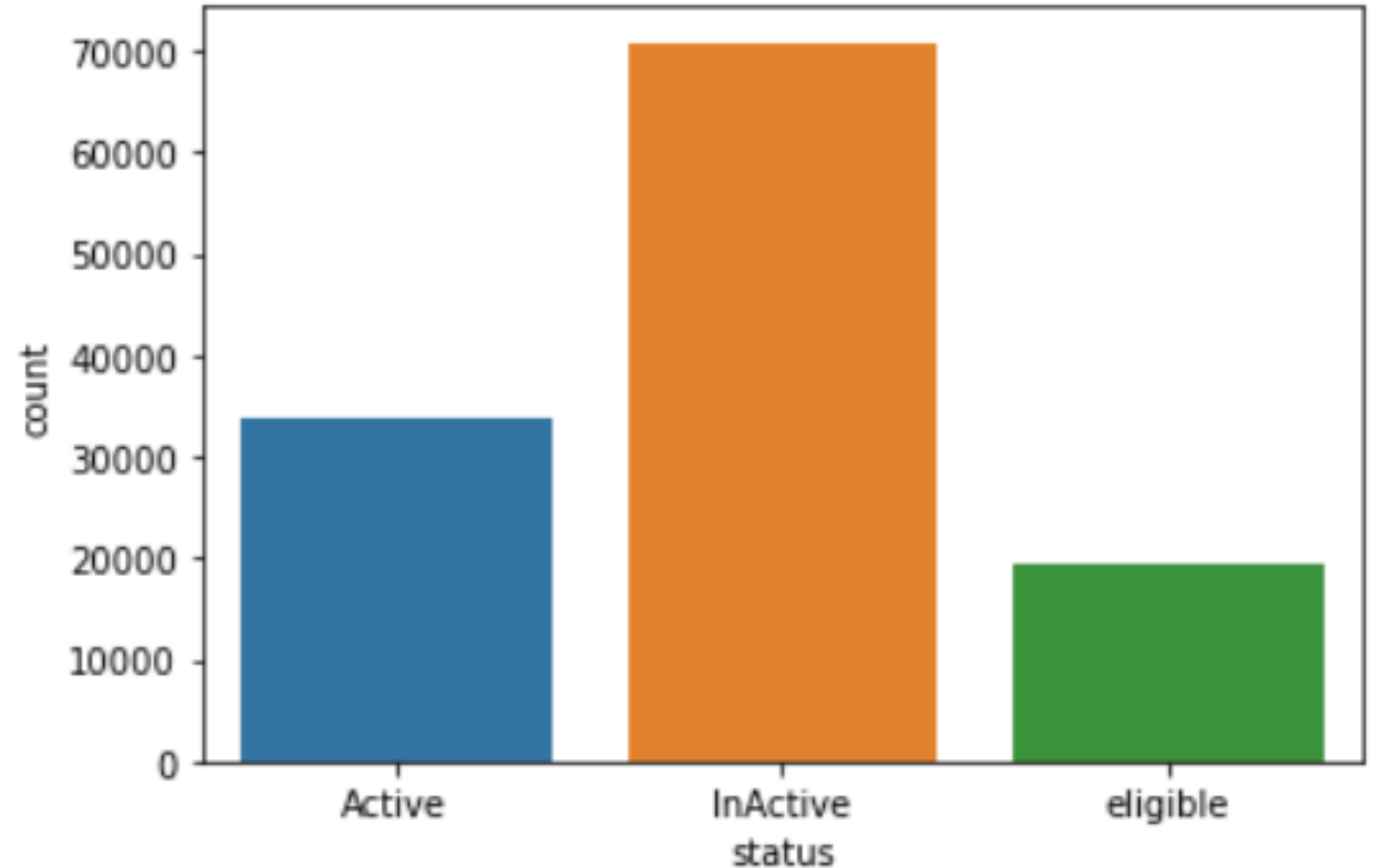
Analysis of the project:

- The goal of this project is to better understand **impact of women's driving on “WOSUL” program**
- To start exploring this goal, I used **a Random Forest model** with one feature/target “**stutues**” to describe **impact of women's driving on “WOSUL” program** as a function of the status of “WOSUL” program .



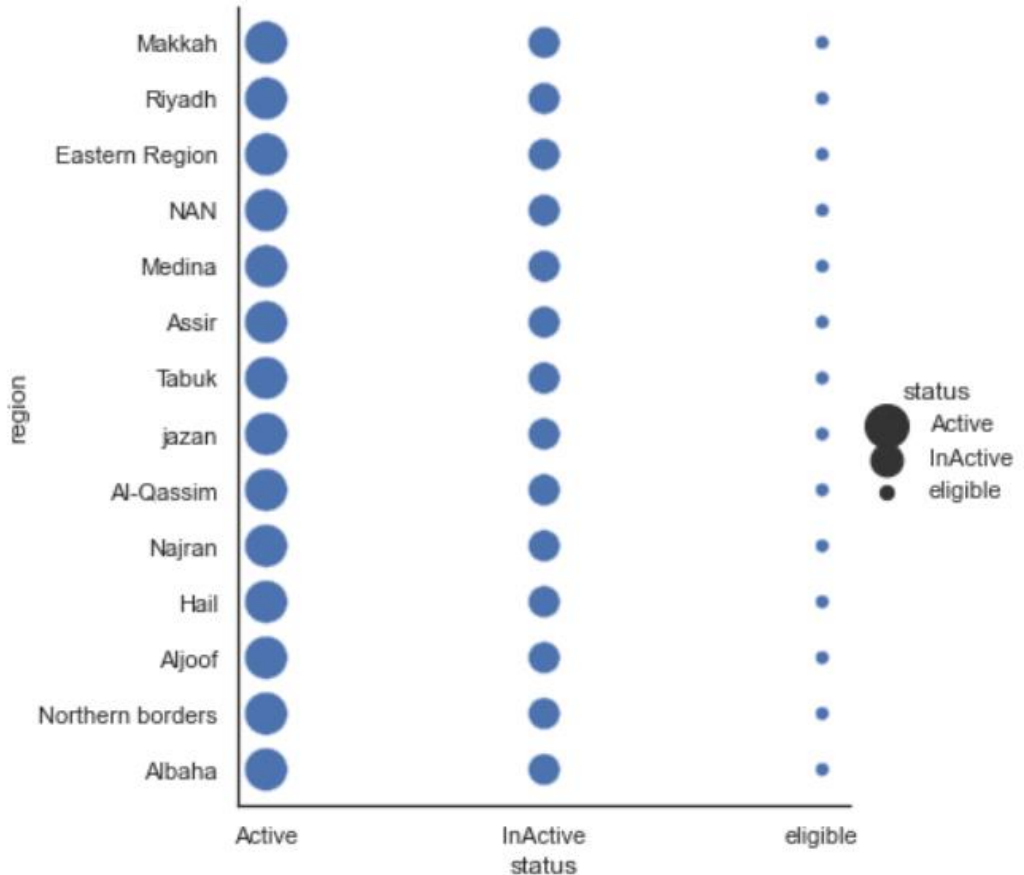
1D Plot using countplot:

- According to the plot , we can see that number of “InActive” women’s statues is 70000 out of 123871. So we can it’s the higher number.



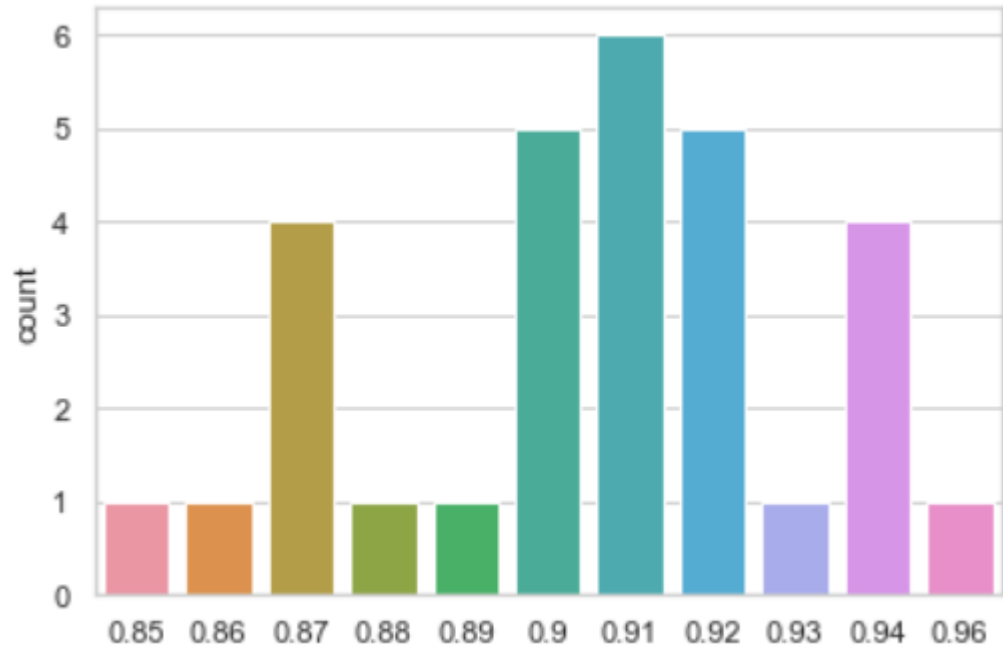
2D Plot using relplot:

- According to the plot , we can see that number of “**Abha’s**” women’s region is the **lowest value**.
- And “**Makkah’s**” women’s region is the **highest value**.



1D Plot using countplot :

- According to the plot , we can see that *range number of the n_score* in the Random Forest model.
- So, the mean accuracy is: **0.906**



- This result suggests that women start driving may have a significant negatively impact on “WOSUL” program .

MVP Goals:

Finally, we already achieved with the below goals:

- ✓ Prepare the environment
- ✓ Import all the libraries and dependencies.
- ✓ Detect the impact of women's driving on “WOSUL” program based on status.
- Detect the of women's driving on “WOSUL” program based on LastFlightDate.



MVP Goals:

After importing the libraries, and read data , I will start Clean date:

1- column:

- *rename columns to English.*
- *remove white space.*
- *check data type.*
- *overwriting FirstFlightDate, LastFlightDate, RegistrationDate after changing format*

2- row:

- *check missing date.*
- *fill missing date with NAN.*
- *check duplicate.*
- *replace statues data columns with:("مستبعدة" → "Inactive" , "مؤهلة" → "eligible" , "فعالة" → "Active")*
- *replace each region to English*

Data before cleaning:

رقم تسلسلي	الحالة	المدينة	المنطقة	مدينة العنوان الوطني	تاريخ أول رحلة	تاريخ آخر رحلة	تاريخ التسجيل
1 0	فعالة	ثول	مكة المكرمة	NaN	4/15/2021	4/16/2021	4/12/2021
2 1	فعالة	طريف	الرياض	NaN	3/2/2021	4/20/2021	3/1/2021
3 2	مستبعدة	NaN	الرياض	NaN	NaN	NaN	3/10/2021
4 3	مؤهلة	الخبر	المنطقة الشرقية	NaN	NaN	NaN	3/1/2021
5 4	فعالة	الحائر (امارة الرياض)	الرياض	NaN	11/4/2020	4/20/2021	11/4/2020

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 123871 entries, 0 to 123870
Data columns (total 8 columns):
#   Column                                Non-Null Count  Dtype
---  -
0   123871                                non-null      int64
1   123871                                الحالة non-null      object
2   119594                                المدينة non-null      object
3   121306                                المنطقة non-null      object
4   96088 مدينة العنوان الوطني non-null      object
5   100594 تاريخ أول رحلة non-null      object
6   100594 تاريخ آخر رحلة non-null      object
7   123871 تاريخ التسجيل non-null      object
dtypes: int64(1), object(7)
memory usage: 7.6+ MB
```

Data After cleaning:

	serial-number	status	city	region	NAS	FirstFlightDate	LastFlightDate	RegistrationDate
0	1	Active	ثول	Makkah	NAN	2021-04-15	2021-04-16	2021-04-12
1	2	Active	طريف	Riyadh	NAN	2021-03-02	2021-04-20	2021-03-01
2	3	InActive	NAN	Riyadh	NAN	NaT	NaT	2021-03-10
3	4	eligible	الخبير	Eastern Region	NAN	NaT	NaT	2021-03-01
4	5	Active	الحائر (امارة الرياض)	Riyadh	NAN	2020-11-04	2021-04-20	2020-11-04

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 123871 entries, 0 to 123870
Data columns (total 8 columns):
#   Column                Non-Null Count  Dtype
---  -
0   serial-number         123871 non-null  int64
1   status                123871 non-null  object
2   city                 119594 non-null  object
3   region               121306 non-null  object
4   NAS                  96088 non-null   object
5   FirstFlightDate      100594 non-null  datetime64[ns]
6   LastFlightDate       100594 non-null  datetime64[ns]
7   RegistrationDate     123871 non-null  datetime64[ns]
dtypes: datetime64[ns](3), int64(1), object(4)
memory usage: 7.6+ MB
```

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Thank you ...

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