

Trial into purchase
conversion

Setup

A company offers free trial classes for potential students.
Some of them later purchase a full course.

Question: which factors determine conversion from a trial class into a purchase?

Data: 50k raw observations with 20 features for April-May 2019.

Data has been split into two groups:

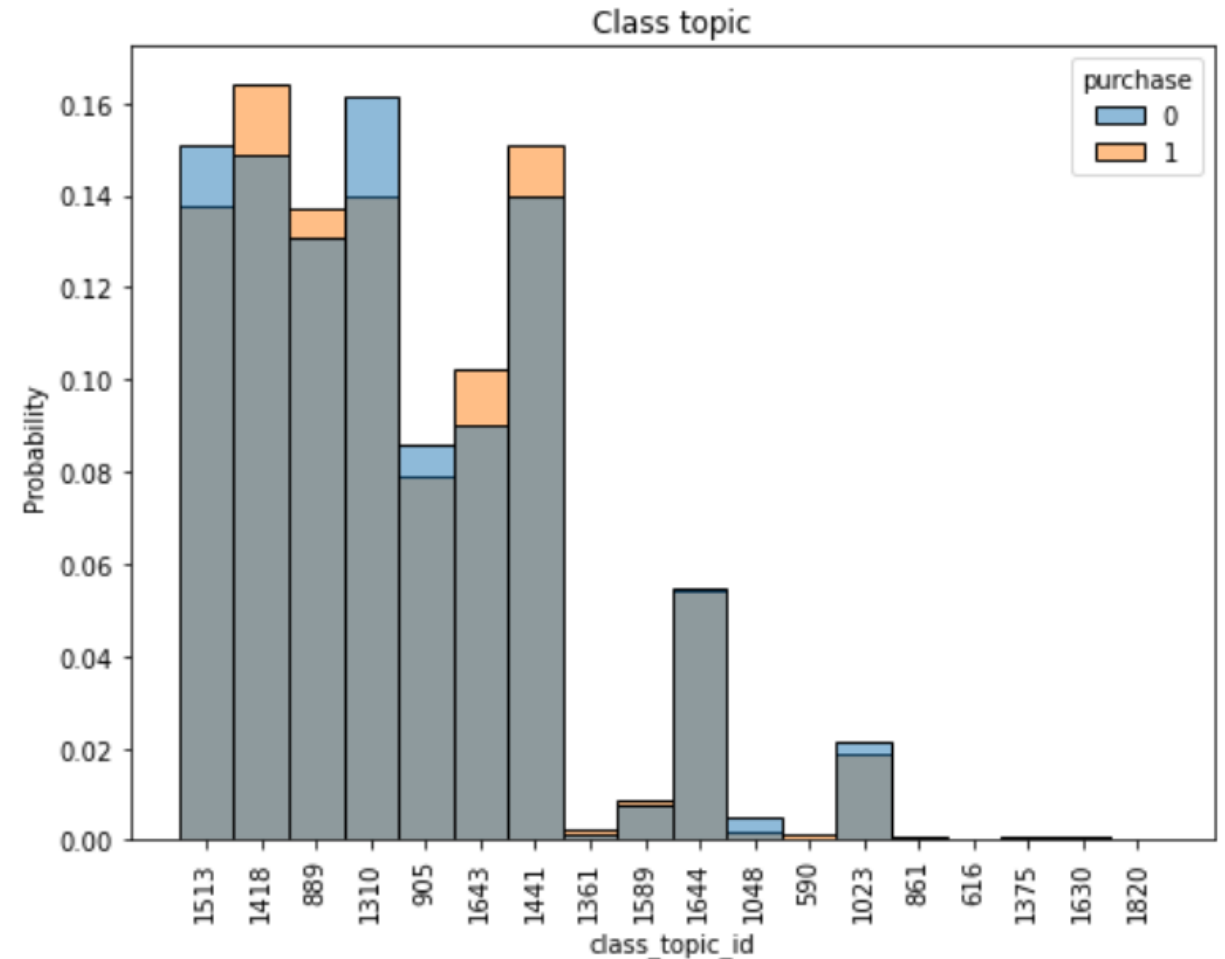
- Group 0 – parents that have made no further purchase after the trial
- Group 1 – parents that have made a purchase after the trial

Class topic

Topics 1418 and 1643 have higher probability of conversion.

Topics 1513 and 1310 have lower probability of conversion.

Difference between groups for 905, 889 and 1441 is not statistically significant.



Device type

Purchasing group (1) tends to use desktops more often.

Non-purchasing group (0) gravitates towards mobile devices and tablets.

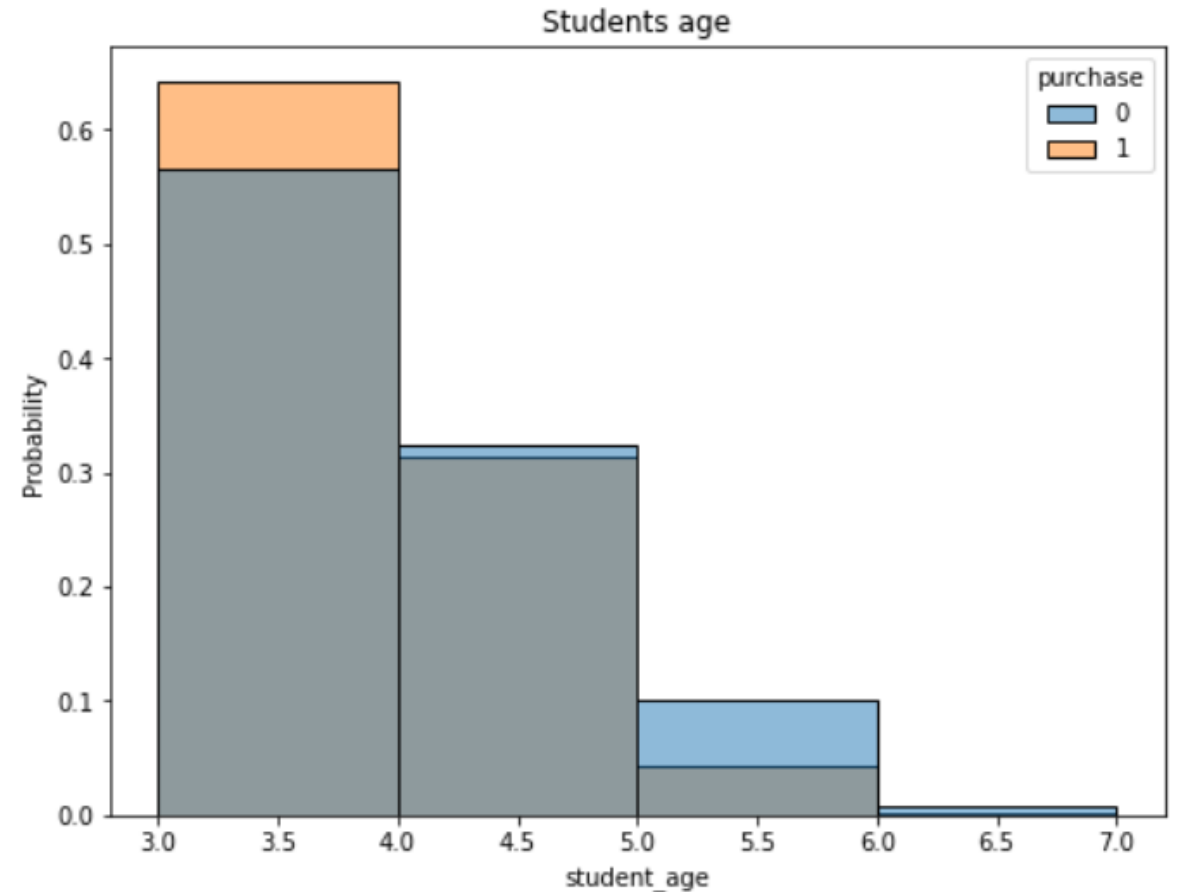
All intergroup differences are statistically significant

Device type	Group 0	Group 1
Desktop	69%	75%
Mobile	20%	6%
Tablet	11%	9%

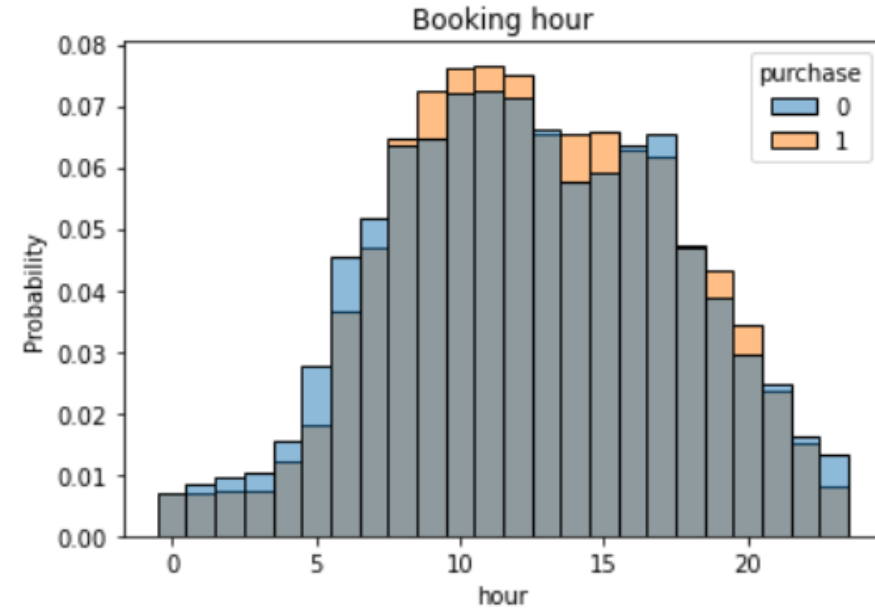
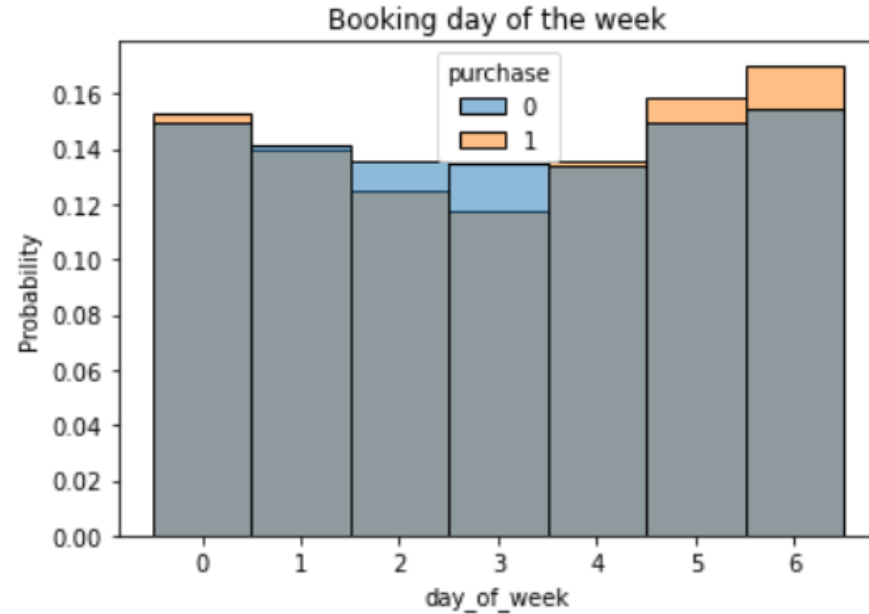
Students' age

Purchases are more likely for parents with kids aged 3-4 and less likely for ages 5-7.

Difference for ages 4-5 is not statistically significant.



Booking day and hour



Bookings during Sundays are more likely to be converted while bookings during Thursdays are less so.

Booking a trial class between 5 to 6 AM is less likely to achieve conversion. Other differences are not statistically significant.

Features with no statistically significant differences

Intergroup differences for these features turned out to be statistically insignificant:

- Student needs level correction
- Student needs class redone

Special case:

- Teacher is a native speaker – proportion for group 0 was 1% higher than for group 1 with p-value 0.048

Conclusions

- “Purchasers” use desktop devices more frequently.
- Purchases are more likely for parents with kids aged 3-4 and less likely for ages 5-7.
- Topics 1418 and 1643 have higher probability of conversion while 1513 and 1310 - lower
- Bookings during Sundays are more likely to become a purchase while bookings during Thursdays are less so.
- Booking a trial class between 5 to 6 AM is less likely to achieve conversion.

Thank you