



***BABSON BUSINESS ANALYTICS CLUB***

**Babson Hack 2019**



## HACKATHON | *The Wayfair Case*

### The Problem

When customers arrive on the [Wayfair](#) platform, we believe they should have choices! This applies to our selection, to our services, and in terms of how to engage with Wayfair and make purchases. To this end, there are numerous routes a customer can take to add items to their basket – including search pages, direct navigation, and clicking on sale banners – to ultimately purchase items. While selection and experience options are often good for customers, Wayfair also believes that helping customers make choices is key to maximizing value and, ultimately, maximizing revenue and customer engagement.

Wayfair regularly experiments with new ways to present products to customers. Wayfair has just concluded a test of the use of Sale banners to drive customer purchases, in which Wayfair added banners to various high-traffic pages where customers can click to browse items on promotion. The goal of this test was to evaluate how to most effectively leverage Sale banners to maximize customer purchases and increase engagement with Wayfair as a

platform. Wayfair's executive marketing team is now looking for guidance on how to leverage the results of the test to set strategic guidance going forward on the use of sale banners.

#### Décor & Pillows

The screenshot shows the 'Décor & Pillows' category page on the Wayfair website. On the left, a sidebar lists 'FEATURED CATEGORIES' including Wall Décor, Picture Frames, Wall & Display Shelves, Mirrors, Clocks, Decorative Pillows, Decorative Throw Blankets, Home Accents, Vases, and Candles & Holders. The main content area features a large banner for 'PRESIDENTS' DAY BLOWOUT' with the text 'UP TO 70% OFF Wall Art & Decor Blowout' and a 'Shop Sale Now' button. Below the banner, six circular product thumbnails are displayed, each with a category label: Wall Décor, Picture Frames, Wall & Display Shelves, Mirrors, Clocks, and Decorative Pillows.

**Your challenge:** Using the data provided, make a recommendation to Wayfair's senior marketing team on how to use sale banners on the Wayfair platform (and just as importantly, how *not* to).



# TALK DATA TO ME

## [ACCESS DATA HERE](#)

*What if I have questions about the data?*

- Each team will be able to ask Wayfair up to 2 questions twice per week. The questions must be submitted by 11AM on Monday and 11AM on Wednesday. You can expect a response within 24-48 hours from the Wayfair team.
- Submit your questions through the [Data Questions Form](#)

The data provided shows how ~900k users interacted on Wayfair.com. We have provided both click stream behavior and demographic data for these users. While real, we have anonymized certain data points in lieu of privacy.

### Data Definition:

| Column Title                | Definition   |
|-----------------------------|--|
| <i>VisitDate</i>            | Date of Visit.   |
| <i>UniqueVisitID</i>        | ID of unique visit by a visitor.   |
| <i>VisitorGroup</i>         | Visitor's past history with Wayfair (if any).                                      |
| <i>PlatformUsed</i>         | Platform from which visitor accessed site.   |
| <i>VisitSource</i>          | Channel from which visitor landed on site.   |
| <i>BrowserName</i>          | Browser from which visitor accessed site.  |
| <i>OSName</i>               | Operating System from which visitor accessed site.                                 |
| <i>State</i>                | State in which user visited site (if available).                                   |
| <i>Gender</i>               | Gender of user (if available).   |
| <i>IncomeRange</i>          | Income range of user (if available).   |
| <i>ViewedProductInVisit</i> | Whether or not visitor viewed a product during visit (1=Yes, 0=No).                |
| <i>ViewedSaleInVisit</i>    | Whether or not visitor viewed a sale page during visit (1=Yes, 0=No).              |
| <i>TotalPageViews</i>       | Total # pages viewed during visit.   |
| <i>PlacedSearch</i>         | Whether or not visitor placed a search during visit (1=Yes, 0=No).                 |
| <i>SecondsOnSite</i>        | Total time spent on site during visit.   |
| <i>ClickedBanner</i>        | Whether or not visitor clicked a banner on the website (1=Yes, 0=No).              |
| <i>AddedToBasket</i>        | Whether or not visitor added any product to basket during visit (1=Yes, 0=No).     |
| <i>Purchased</i>            | Whether or not visitor purchased any product to basket during visit (1=Yes, 0=No). |





## JUDGING CRITERIA

The judging panel asks that you **use the below criteria as guidance** when developing your final presentations.

|                        | Graduate Scoring   |  |   |  |
|------------------------|--|--|---|--|
|                        | 1  | 2  | 3   | 4  |
| Creativity in Analysis | Some data used, analysis is only descriptive of what happened                                  | Relevant data used, analysis is only descriptive of what happened  | Relevant data used, analysis is prescriptive of what actions should be taken  | External data used along with relevant internal data; analysis is prescriptive of what actions should be taken   |
| Use of Technology      | Utilized basic tools such as Excel for analysis, did little to showcase technical capabilities | Created charts using visualization tools such as Tableau, but did not showcase interactive capabilities to convey insights | Utilized advanced data manipulation tools to transform data, created interactive visualizations using tools such as Tableau | Transformed data using tools such as SQL, R, Alteryx, Tableau etc. and showcased excellent use of visualization and interactivity to convey insights and recommendations |
| Usability of Results   | No actionable recommendations provided   | Some actionable recommendations provided; no plan for implementation   | Excellent actionable recommendation; difficult to implement   | Excellent actionable recommendation; easy to implement   |
| Clarity of Insights    | Too much detail on analysis, insufficient presentation of results and recommendations          | Sufficient detail of analysis, unclear recommendation; too technical for audience  | Clear and concise results and recommendation; too technical for audience  | Clear and concise results and recommendation; summarized for an executive level audience   |
| Executive Presence     | Presenters showed little confidence in analysis, exceeded time limit                           | Presenters showed little confidence in analysis, met time limit  | Presenters showed some confidence in analysis, met time limit   | Presenters very confident in analysis, met time limit  |



## JUDGING CRITERIA

|                        | Undergraduate Scoring  |  |  |  |
|------------------------|--|--|--|--|
|                        | 1  | 2  | 3  | 4  |
| Creativity in Analysis | Some data used, analysis is only descriptive of what happened                                  | Relevant data used, analysis is only descriptive of what happened  | Relevant data used, analysis is prescriptive of what actions should be taken   | External data used along with relevant internal data; analysis is prescriptive of what actions should be taken                         |
| Use of Technology      | Utilized basic tools such as Excel for analysis, did little to showcase technical capabilities | Utilized Excel for analysis, showcased use of advanced features (i.e. pivot tables, IF statements, charts, etc.) | Created charts using visualization tools such as Tableau, but did not showcase interactive capabilities to convey insights | Utilized advanced data manipulation tools (i.e. SQL) to transform data, created interactive visualizations using tools such as Tableau |
| Usability of Results   | No actionable recommendations provided   | Some actionable recommendations provided; no plan for implementation   | Excellent actionable recommendation; difficult to implement  | Excellent actionable recommendation; easy to implement   |
| Clarity of Insights    | Too much detail on analysis, insufficient presentation of results and recommendations          | Sufficient detail of analysis, unclear recommendation; too technical for audience                                | Clear and concise results and recommendation; too technical for audience   | Clear and concise results and recommendation; summarized for an executive level audience   |
| Executive Presence     | Presenters showed little confidence in analysis, exceeded time limit                           | Presenters showed little confidence in analysis, met time limit  | Presenters showed some confidence in analysis, met time limit  | Presenters very confident in analysis, met time limit  |



## KEY DATES AND TIMES

2/13

### **Hackathon Kick-Off and Networking Event**

Wednesday February 13<sup>th</sup> from 1-4 PM  
Winn Auditorium & Park Manor West, Babson College

2/18

### **Mentor Catchup**

Provide mentors with time availability and  
schedule meetings between 2/18 – 2/28

2/19

### **Alteryx Workshop**

Tuesday February 19<sup>th</sup> from 4 PM to 6 PM  
Babson Olin Hall (Room 120)  
Optional workshop to help you find insights from your data using Alteryx

2/22

### **Tableau Workshop**

Friday February 22<sup>nd</sup> from 10:30 AM to 12:30 PM  
Babson Olin Hall (Design Zone)  
Optional workshop to help you find insights from your data using Tableau

3/5

### **1-Pager & Presentation Submissions**

Due by March 5<sup>th</sup> @ 11:59 PM EST  
Teams must submit their presentations and 1-pager to Nazim Haider  
([nhaider1@babson.edu](mailto:nhaider1@babson.edu))

3/8

### **Teams Notified if Selected for Final Presentations**

Due to space limitations at Wayfair, the Top 5 Undergraduate  
and Top 12 Graduate teams will be presenting at Wayfair HQ

3/12

### **Final Presentations**

Tuesday March 12<sup>th</sup> from 4:00 PM to 7:00 PM  
Wayfair Headquarters



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## MENTORSHIP

Each team will be assigned a mentor currently working in the analytics field. This mentor will be there to answer questions and help drive your ideas forward. We have asked mentors to commit 1 hour to each team and **it is up to the team to drive the conversation.**

We will provide you with the e-mail address and Bio of your assigned mentor after the kick-off event by February 15<sup>th</sup>.

We ask that the **team lead reach out to your mentor and schedule appointments by Monday February 18<sup>th</sup>.**

Keep in mind that mentors may be travelling, and discussion may happen over the phone/skype as opposed to in-person.

Lastly, in order to be eligible for prizes and allowed to present at final presentations, at least 1 team member is **required to meet with your mentor. Try capturing few pics when you meet your mentor and share with us.**





# Tableau for Students

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The Tableau for Students program provides currently enrolled students around the world with free one-year Tableau Desktop Licenses. Work with Tableau in a class, internship or for a personal data project.

Request a free license today:

1. Go to the Tableau for Students site: [www.tableau.com/students](http://www.tableau.com/students).
2. Select the “Get Tableau for Free” button, and fill out the form
3. Students should receive their key in a few hours once the form is submitted and they are verified as currently enrolled at a university.
4. While they wait for their key, they can download the [14-day trial](#), and start working with Tableau in just a few minutes.

Start Learning with our [on-demand training videos](#) and [Starter Kits](#).

Find answers to your questions and more self-service learning options on our [Student Resource Page](#).

Like our [Tableau on Campus Facebook page](#) to stay in-the-know.







# HOW TO INSTALL ALTERYX

Alteryx for Good has provided each student with a 1-month license! Below are instructions on how to download Alteryx as well as training videos to get up and running. We will distribute license keys after the kick-off.

- Access licensed product(s) by visiting our [Alteryx Downloads and Licensing Portal](#). From [the Portal](#), enter assigned License Key & email address to begin the download
- Get up and running quick - take 4 minutes to watch our [Introduction to Alteryx Designer](#) training module
- Visit [Alteryx Academy](#) for interactive lessons, live training options, and so much more

To learn more about managing your license from the [Alteryx Downloads and Licensing Portal](#) by checking out the Licensing Help.

If you need support to help you get started, we have many on-line resources available for you on our website:

- [AFG Co-Lab](#) - Find a network of Alteryx experts here to help you with your workflows
- [Product Training](#) – Alteryx Onboarding starts here. Click to access the product overview, self-paced training, and workflow building. Use the Help tab on the Alteryx Designer License settings to access data sets for training.
- [Daily Demo](#) - Register for a live demonstration. Available Monday through Friday at 10:00am PST/1:00pm EST.
- [Alteryx Help Site](#) - The tools section provides an in-depth explanation of each tool including the configurations.
- [Online Community](#) – Join discussions or search for answers with our engaging customers and employees.

**\*Apple/Mac users, Alteryx does not have a product for Mac.**





## SUBMISSIONS, PRESENTATIONS, AND PRIZES!

### *Submissions:*

- *Semi Finals Submissions*
  - Teams must submit their presentations and 1-page summary to Nazim Haider ([nhaider1@babson.edu](mailto:nhaider1@babson.edu)) by March 5<sup>th</sup> @ 11:59 PM. **No Late Submissions will be Accepted.**
  - Teams will be notified if they made final presentations by March 8<sup>th</sup>.
- *Final Presentation Submissions*
  - If teams selected to present at Wayfair have any last-minute changes, they can submit by March 10<sup>th</sup> @ 11:59 PM. Otherwise, the previous submission will be used.
- *“Best of Tableau” Prize Submissions (available to everyone, even if you do not make final presentations)*
  - Submit a copy of your Tableau workbook by March 5<sup>th</sup> @ 11:59 PM. **No Late Submissions will be Accepted.**

### *Presentations:*

- **Who:** Top 5 Undergraduate and Top 12 Graduate teams
  - *Due to space limitations at Wayfair, we cannot have everyone attend final presentations*
- **Where:** Wayfair Headquarters, Boston
- **When:** Tuesday March 12<sup>th</sup> @ 4:00 PM – 7:00 PM
- **What:** 5-7 minute team presentations followed by Q&A and Networking

### *Prizes Eligibility Requirements:*

- In order to be eligible to win prizes and present at Wayfair HQ, **you must meet the following requirements**
  - At least 1 person from the team is **required to meet with your mentor** (we will be getting e-mail confirmations from your mentors after you have met).
  - At least 1 person from the team is **required to present at the final presentations**
- What are the prizes?
  - **Grand Prize:** Graduate Winners \$400 per team; Graduate Runners \$200 per team; Undergraduate Winners \$400 per team
  - **“Best Use of Tableau”:** Tableau has provided us with several prizes for the team that has the best use of Tableau. Each team member will be able to choose 1 item from the variety of gifts provided.

