

# GETTING ON THE SAME PAGE

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FOSTERING EFFECTIVE STAKEHOLDER COMMUNICATION

# AGENDA

I/ A Motivating Example

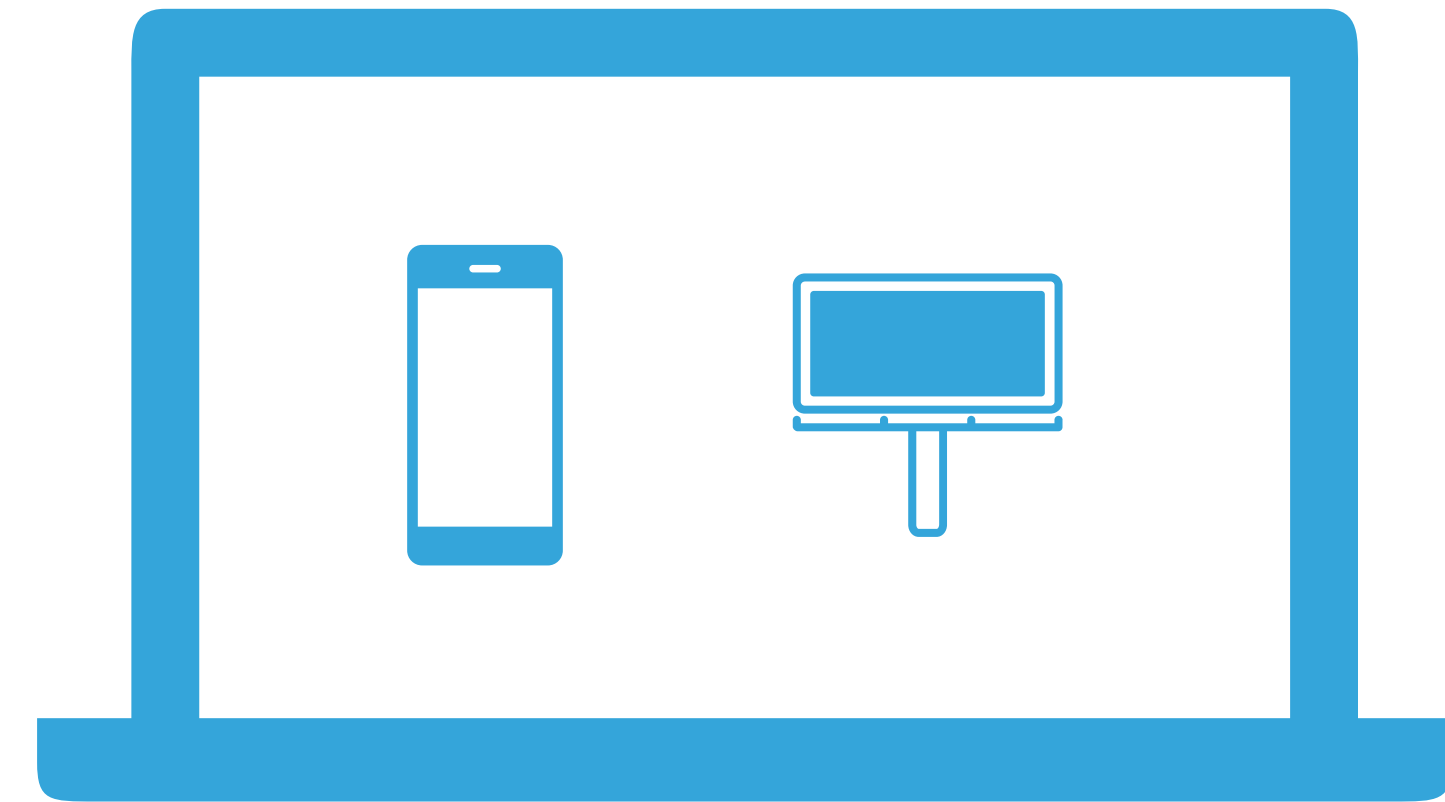
II/ Project Process

III/ Breaking Down Complex Ideas

IV/ Key Takeaways

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# A MOTIVATING EXAMPLE



# PROJECT PROCESS

I/ Planning and Initial Meetings

II/ Iterations

III/ Deliverables

# PLANNING AND INITIAL MEETINGS

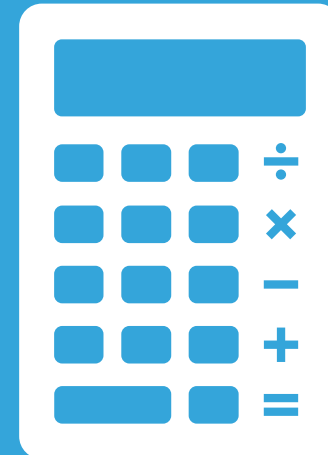
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# UNDERSTAND YOUR STAKEHOLDERS



WHAT ARE THEIR ROLES AT  
THE COMPANY? JOB  
DESCRIPTIONS?

MARKETING, DESIGNERS



HOW MUCH EXPERIENCE DO  
THEY HAVE WORKING WITH  
MORE TECHNICAL TEAMS?

1 PREVIOUS PROJECT



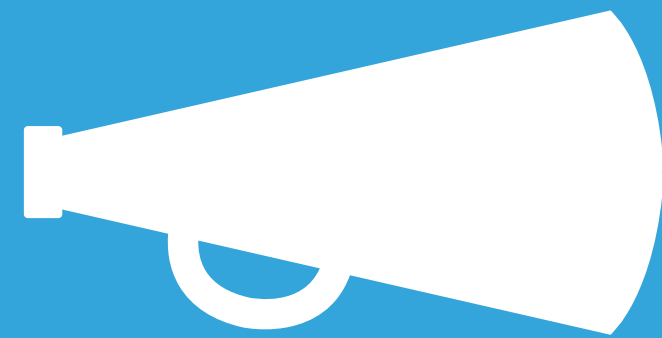
WHAT ARE THEIR  
CAPABILITIES IN TERMS OF  
UTILIZING RESULTS?

NOT DATA SAVVY

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# DEFINING THE PROJECT

**DIALOGUE**



**USE ALL THE EXPERTISE**

**KEY PERFORMANCE INDICES**



**CLICK RATES, AD  
CONVERSIONS**

**END GOALS**



**INCREASE CLICKS, PURCHASES**

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# DIALOGUE

“We don’t understand why people don’t click on our ads.”

“Let’s use artificial intelligence!”

“We need more purchases from our online marketing.”



“Let’s determine who is currently interacting with ads.”

“A less complicated analysis might be just as fruitful.”

“How much spend needs to be generated by ads?”



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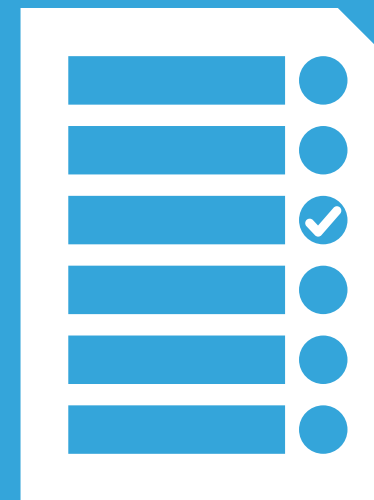
# GOALS AND DELIVERABLES

**BUSINESS RECS**



**TYPES OF ADS, WHO TO  
TARGET**

**AUTOMATED REPORT**



**SUMMARY OF AD  
PERFORMANCE**

**DASHBOARD**



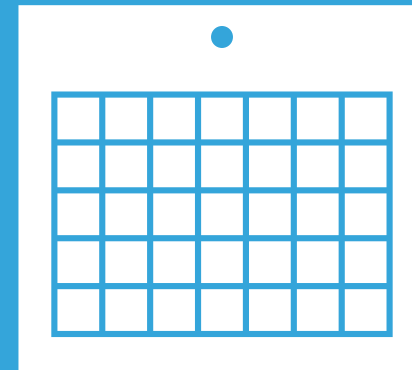
**SELF SERVICE TOOL**

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# PLANNING STAGES AND INITIAL MEETINGS



**IDENTIFY AND UNDERSTAND  
STAKEHOLDERS**



**TIMELINE FOR UPDATES  
AND TOUCHBASES**



**PRELIMINARY GOALS AND  
DELIVERABLES**

**ITERATIONS**

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# REGULAR CHECK-INS



**ENSURES ALIGNMENT AND  
KEEPS YOU ON TRACK**



**BUILD STAKEHOLDER  
RELATIONSHIPS**



**UPDATE GOALS AND  
DELIVERABLES**

# REGULAR CHECK-INS

## PRELIMINARY FINDINGS



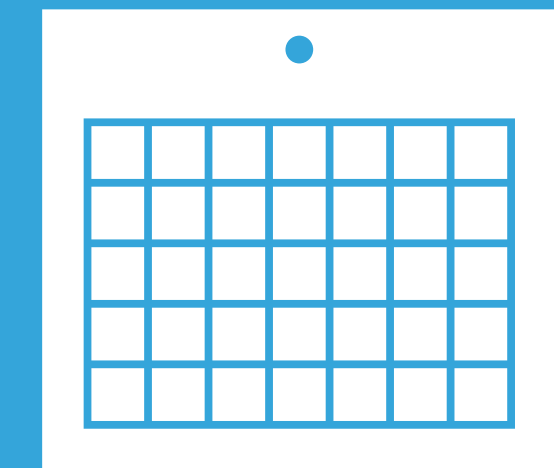
- ▶ Purchases broken down by gender, age, etc.
- ▶ Summary of ad clicks

## QUESTION AND ANSWER



- ▶ “Why this graph?”
- ▶ “Is this in line with who you target?”

## NEXT STEPS



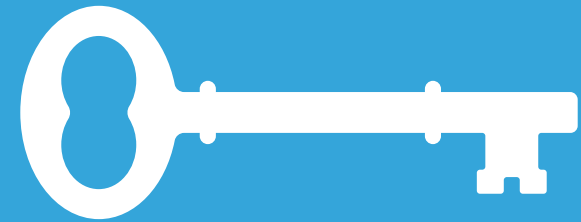
- ▶ Date for next touch base
- ▶ Fit preliminary models

**DELIVERABLES**

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# FINAL PRESENTATION

## KEY FINDINGS



- ▶ Executive summary
- ▶ What is most important?

- ▶ Females 19–25 most likely to click
- ▶ Instagram drives most purchases

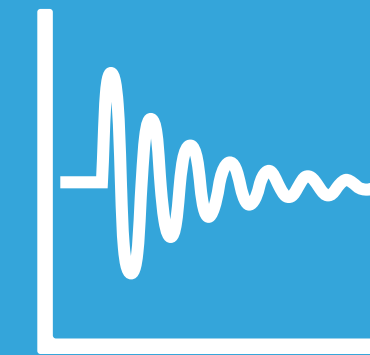
## STAKEHOLDER IMPLEMENTATION



- ▶ What does execution look like?
- ▶ How will success be measured?

- ▶ Show ads to those likely to interact
- ▶ Design ads for missing groups

## HIGH LEVEL SUMMARY

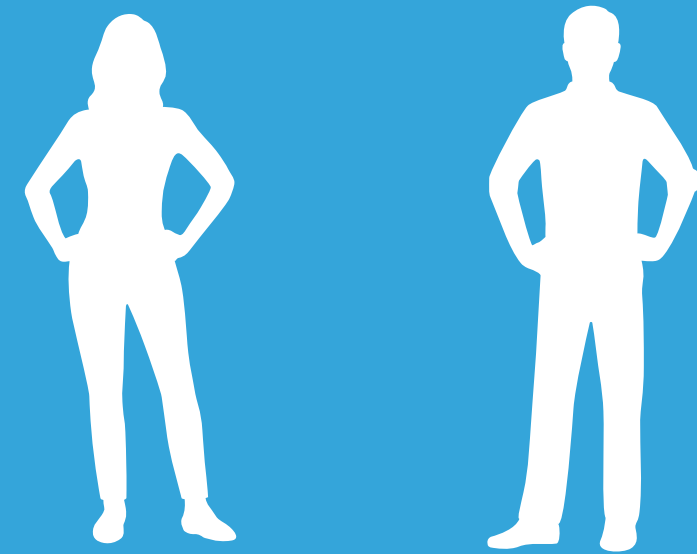


- ▶ Present supporting evidence
- ▶ Analysis overview

- ▶ Graphs of customer breakdowns
- ▶ High level math

# FINAL PRESENTATION

## TAILOR TO AUDIENCE



- ▶ What is most important for their role?
- ▶ Technical level

## ALGORITHM/MODEL



- ▶ High level summary
- ▶ Avoid jargon

## PICTURES, PICTURES, PICTURES



- ▶ Demonstrate key findings
- ▶ Exploratory data analysis



# **BREAKING DOWN COMPLEX IDEAS**

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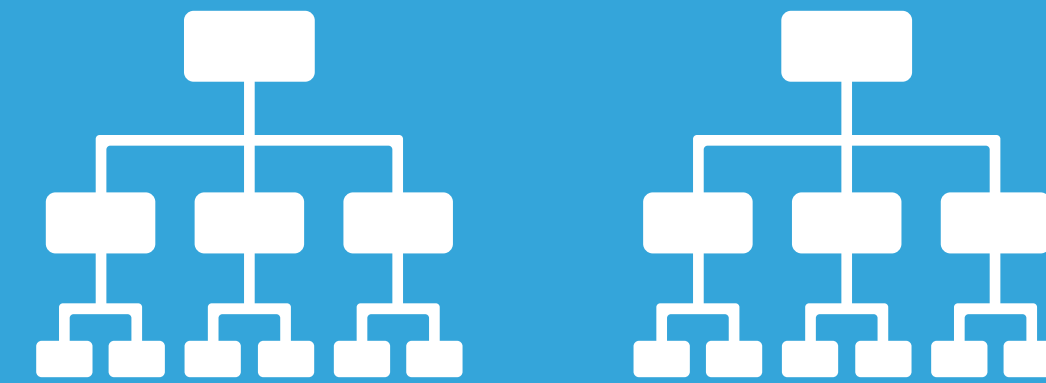
# DATA SCIENCE RESULTS

## THE BREAKDOWN



- ▶ Model building blocks
- ▶ Assumptions and limitations
- ▶ Key characteristics

## RANDOM FOREST MODEL

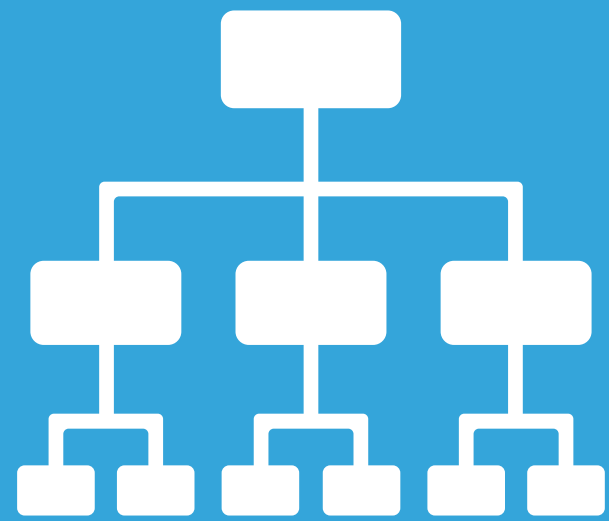


- ▶ Classifier for ad click
- ▶ Classifier and regression for purchase

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# DATA SCIENCE RESULTS

## MODEL BUILDING BLOCKS



- ▶ Multiple decision trees
- ▶ Randomly selected variables, bootstrap sample
- ▶ Majority wins for prediction

## ASSUMPTIONS/LIMITATIONS



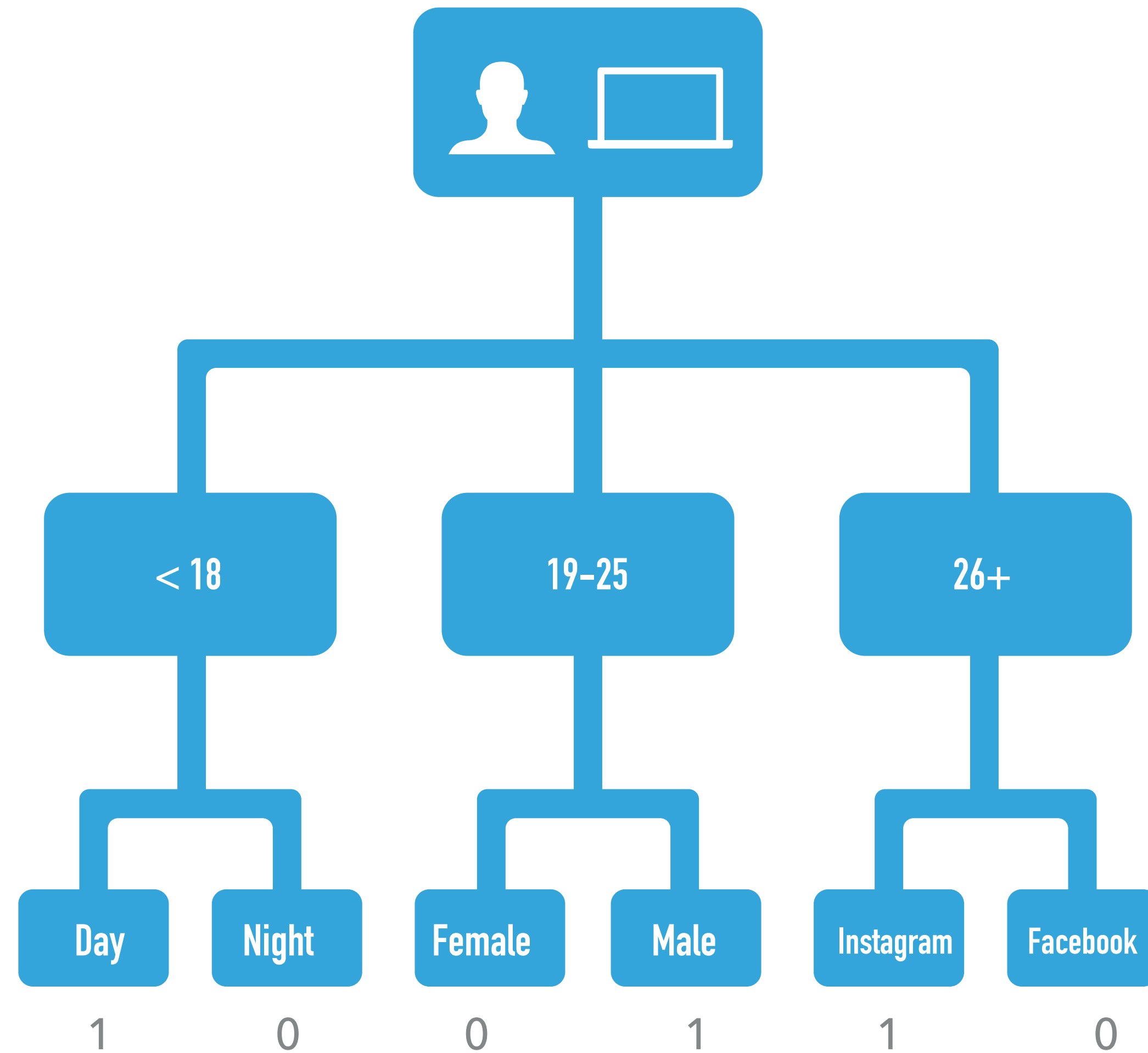
- ▶ Cannot predict beyond training
- ▶ Risk of overfitting

## PRACTICE, PRACTICE, PRACTICE

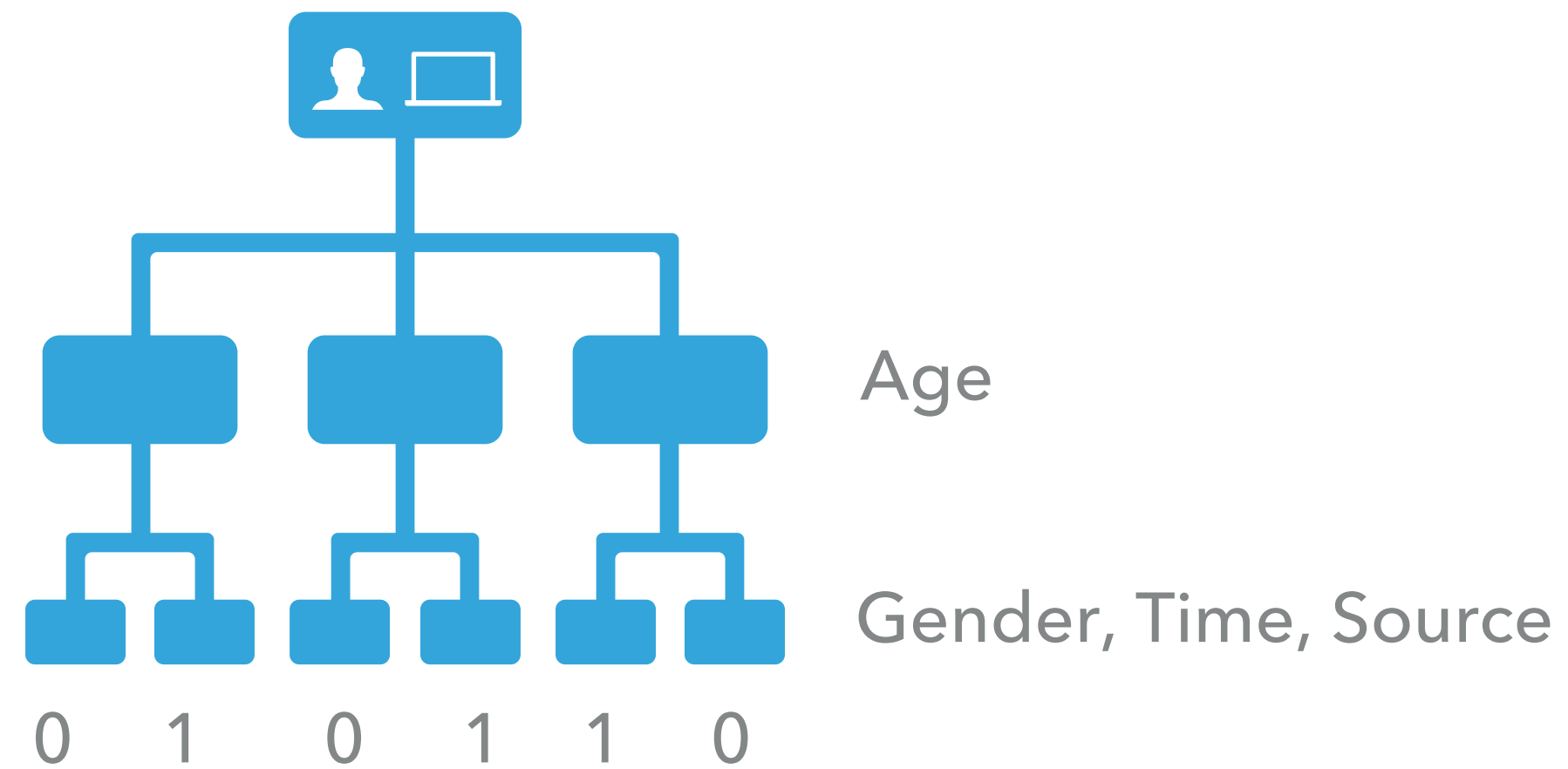


- ▶ Family, friends, co-workers
- ▶ Tutoring, teaching assistant

# DECISION TREE

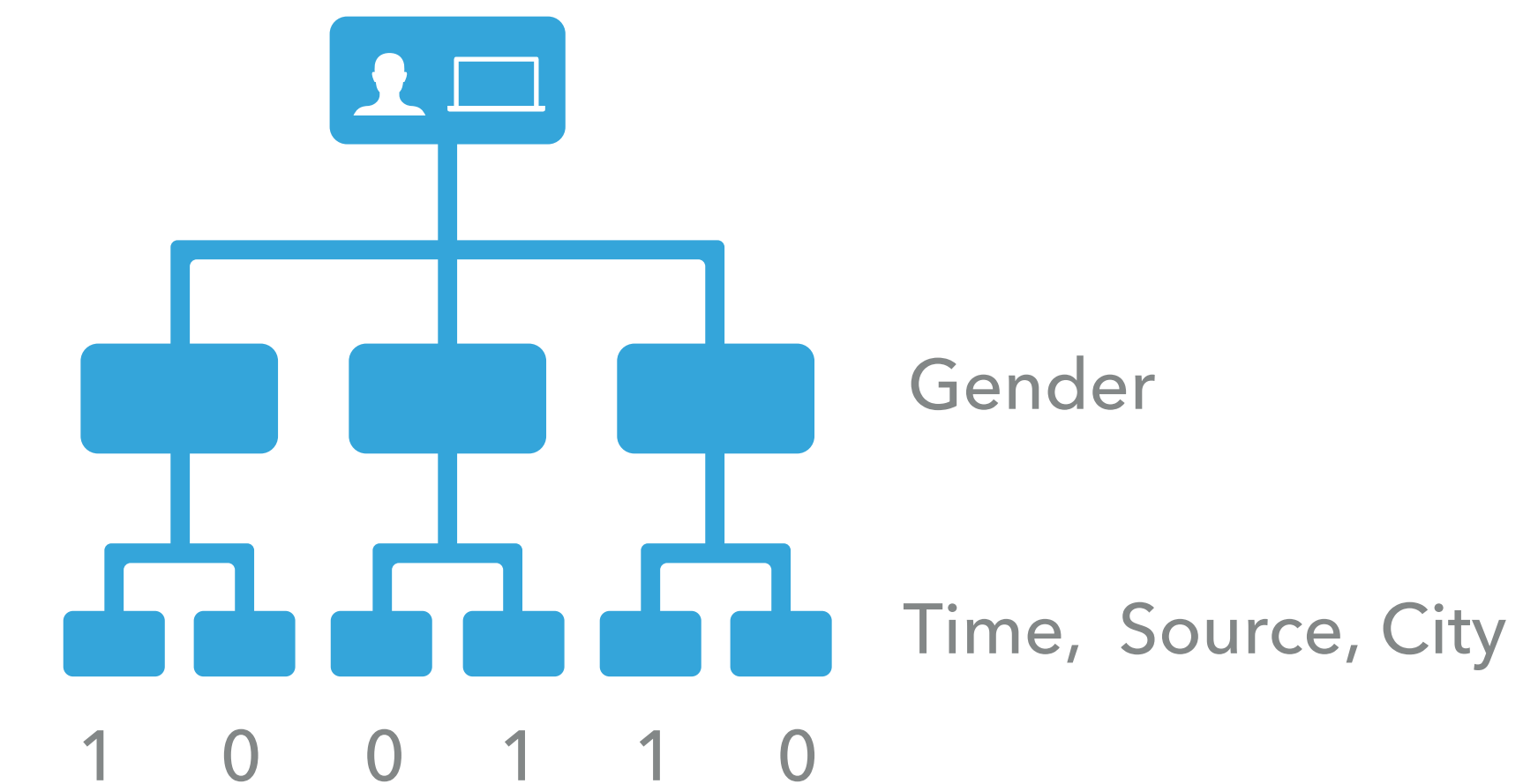


# RANDOM FOREST MODEL



- ▶ Combining multiple decision trees
  - ▶ Bootstrap sampling
  - ▶ Random selection of variables

- ▶ Prediction based on outcome of all trees



# KEY TAKEAWAYS

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# KEY TAKEAWAYS

## WORKING WITH STAKEHOLDERS

- ▶ Recognize the business expertise
- ▶ YOU are the data science expert
- ▶ This is an iterative process

## DATA SCIENCE PRESENTATIONS

- ▶ Emphasize the key results
- ▶ Pictures are worth 1000 words
- ▶ Practice makes perfect

# QUESTIONS?

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