

# Technical Skills Assessment

## Business Analyst - University of Idaho

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## Second Round Interview Process

### Search Committee Interview (60 minutes)

This section of the second-round interview process will be conducted as a question-and-answer session between the candidate and the search committee, similar to the first-round interview process.

### Open Forum & Technical Skills Assessment Presentation (60 minutes)

This section of the second-round interview process will be conducted as an open forum for all Advancement and Foundation Staff who are able to attend and review each candidate, providing valuable feedback to the search committee from a variety of perspective. Their goal is to view your technical skills assessment presentation as well as have an open question-and-answer session between yourself and all attending Advancement and Foundation Staff.

While you will have already submitted your technical skills assessment work to the search committee for a review of content accuracy based on the mock data being provided; this presentation will allow you an opportunity to showcase your skills in presenting summary data to both a technical and non-technical audience.

All the audience will be provided with prior to your presentation is the following summary:

The candidate was asked to complete a two-part technical skills assessment:

- First, to showcase their data processing skills. Specifically, telling us from the mock data set, who should be included in an email distribution list based on a set list of filtering criteria as well as identifying a list of top 10 donors based on a set list of filtering criteria.
- Second, to showcase their marketing campaign recommendation skills. Specifically, telling us from the mock data set what campaign marketing strategies should be utilized to best meet campaign goals.

After the Open Forum group is informed with this brief summary, you will then be presented with the opportunity to share your screen and start your technical skills assessment presentation (averaging about 5-10 minutes in length). Please feel free to utilize any presentation tools/resources that you deem appropriate.

### Meeting with Leadership (30 minutes)

This section of the second-round interview process will be conducted as a question-and-answer session between the candidate and the hiring authority and leadership team for this Business Analyst position.

## Introduction & Instructions

### Technical Skills Assessment Introduction

Hello Candidate, congratulations on making it to this point of our Business Analyst search procedure! As part of the hiring process for this position, we have included a technical skill assessment. This purpose is twofold:

1. This assessment gives you an opportunity to demonstrate firsthand your skills and abilities to the search committee.
2. The data used in this assessment is a proxy to the type of work you will be doing in this role. This will give you an insight into the type of day-to-day work you might see.

### Technical Skills Assessment Instructions

This technical skills assessment will be broken into two parts:

1. Part One: Data Processing
  - a. Summary: The University of Idaho Advancement Business Analyst will use their data processing skills as part of a team tasked with analysis reporting and ad hoc reporting requests. A primary responsibility for this team member will be to serve as a functional specialist with an understanding of the Advancement business needs and processes and the assigned reporting that support Advancement and campus partners requesting Advancement data.
  - b. Goal: Showcase your skills in the field of data science while highlighting your proficiency in related data processing tools. This section highlights an example of a typical ad-hoc request and reporting needs of the University of Idaho Foundation Advancement Services.
2. Part Two: Marketing Campaign Recommendation(s)
  - a. Summary: The University of Idaho Advancement Business Analyst will use their market analytics skills to serve as an expert in marketing campaign performance analysis, Marketing ROI (Return on Investment) analysis, and in the design and analysis of A/B (split) testing. This includes interpreting data to assess campaign effectiveness, identify trends and optimize future initiatives to support Advancement and campus partners requesting Advancement data.
  - b. Goal: Showcase your skills in the field of market analytics while highlighting your proficiency in donor segmentation and the utilization of data to better understand the various channels contributing to gift acquisition and engagement. This section highlights an example of typical marketing analytic needs of the University of Idaho Foundation Advancement Services.

You will have four days to complete this technical skills assessment (*Thursday May 30<sup>th</sup> – Sunday June 2<sup>nd</sup>*). Your completed work will need to be submitted back to the search committee chair, Josie Jensen ([josiejensen@uidaho.edu](mailto:josiejensen@uidaho.edu)) no later than 8:00am PST on Monday June 3<sup>rd</sup>. Please reach out at any time if you have questions. We wish you all the best in completing this assessment!

Sincerely,  
The Search Committee

## Part 1: Data Processing

### Solicitation Request

Please generate a file to submit from the data set(s) provided that meet the criteria outlined below. You may use any tool/program/language that will help you accomplish the required tasks.

**Email Contact List:** Create a .xlsx file that will act as an email distribution list for a solicitation.

*\*Please use the 'Formatted Name' and the 'People' file to generate this list.*

- The filtering requirements are:
  - Must have a 'Current' value for Person Status
  - Must have a preferred email
  - Must NOT have a No Email Indicator value of 'Yes'
  - Compress the records so that only one 'Household' or row exists for each Spouse/Partner pairing.
- The output should include:
  - Household ID
  - Primary ID
  - Spouse ID
  - First Name
  - Last Name
  - Spouse/Partner First Name
  - Spouse/Partner Last Name
  - Joint Casual Salutation
  - Preferred Email
  - No Email Indicator

### Identifying Top Donors

Please generate a file to submit from the data set(s) provided that meet the criteria outlined below. You may use any tool/program/language that will help you accomplish the required tasks.

**Top Donors from Idaho, Washington, and Oregon:** You can present this in whatever format you feel is appropriate to show summary information about giving (ex. Power BI, Tableau, Excel graphs, R/Python reports, etc.). Please provide the information requested in the requirements/outputs, but also feel free to provide any additional insight/statistic/summary information you think may be interesting to the committee.

*\*Please use the 'Contribution' file to generate this list.*

- The filtering requirements are:
  - All donations must be from donors with addresses in either Washington, Oregon, or Idaho.
  - The gifts do NOT have an Association Type of 'In Memory of' or 'In Honor of'.
  - The gifts do NOT have a Designation Code of 'NF681'.
- The output should include:
  - A bar graph showing total Amounts by State and Calendar Year.
  - The top 10 highest donors by Recognition Credit to the 'Engineering' value in the "College" column.
  - Any additional measurements/visuals/points of interest you would like to present.

## Documents for your Reference

Please review the three data sets sent to you via email and the below explanation of the data fields:

### File 1 – Business Analyst Contribution

This file contains the giving associated with different records. The table below describes the following columns of data.

Column Name	Description
Primary ID	This is the primary key associated with a single person. Each person has their own unique key.
Association Type	Category showing what association the gift came from (Group, Primary Person, Honorary, etc)
Created On	Date the transaction was created
Amount	This is the transaction line that shows the actual value being transferred to UI
College	College the gift is associated with
Department	Department the gift is associated with
Recognition Credit	Credit is used to show an individual's association with a gift. For example, when a Spouse/Partner gives a gift, one of them will have both Amount and Recognition credit for the gift while the other partner will just have Recognition Credit
Designation Code	The code that reflects the specific designation the gift went to
Designation Purpose	The category the designation is broadly associated with

### File 2 – Business Analyst People

This file contains a list of unassigned prospects. The table below describes the following columns of data.

Column Name	Description
Primary ID	This is the primary key associated with a single person. Each person has their own unique key.
First Name	First Name of the Individual associated with the Primary ID
Last Name	Last Name of the Individual associated with the Primary ID
Primary Constituent Affiliation	These are the relationship people have with the University of Idaho. Each person has only one primary affiliation associated with their record. These values include ones such as Alumna/us, Faculty/Staff, Student, Parent of Current Student, etc.
Person Status	Status showing whether the person is listed as living or deceased in the CRM
Preferred Email	Preferred Email for this record
Preferred Phone	Preferred Phone for this record
City	City for the preferred address for this record
State	State for the preferred address for this record
Zip	Postal Code for the preferred address for this record
No Email Indicator	Indicator flag for whether this record can be contacted via email where 'Yes' means 'Do not Contact via this method'
No Mail Indicator	Indicator flag for whether this record can be contacted via mail where 'Yes' means 'Do not Contact via this method'
No Phone Indicator	Indicator flag for whether this record can be contacted via phone where 'Yes' means 'Do not Contact via this method'
No Solicitation Indicator	Indicator flag for whether this record can be contacted for solicitation (asking for gifts) where 'Yes' means 'Do not Contact via any method to ask for gifts'

### File 3 – Business Analyst Formatted Names

This file contains a list of formatted name types. The table below describes the following columns of data.

Column Name	Description
HouseholdID	This is the ID of the Primary Person for a Spouse/Partner pairing. For every couple, one of their primary IDs will match the HouseholdID. This signifies that they are the 'Primary' and should be the included record if both spouse/partners appear in a list  If the individual is not married, it will just be their Primary ID.
Primary ID	This is the primary key associated with a single person/record. Each person has their own unique key.
SpouseID	This is the Primary ID of the Spouse of the person who is the primary on this record
Type	The type of the formatted name
Name Value	This is the value associated with the Type
Spouse/Partner First Name	First Name of the Spouse/Partner for the record
Spouse/Partner Last Name	Last Name of the Spouse/Partner for the record

## Part 2: Marketing Campaign Recommendation(s)

### Market Analytics

Please generate a file to submit from the data set(s) provided that meet the criteria outlined below. You may use any tool/program/language that will help you accomplish the required tasks.

**Preliminary Campaign Recommendations:** You can present this in whatever format you feel is appropriate to show summary information to justify your initial recommendations for a campaign targeted towards gift acquisition and donor engagement; based on the market analytics you conduct on any of the provided data sets. Please provide the information requested in the requirements/outputs, but also feel free to provide any additional insight/statistic/summary information you think may be interesting to the committee.

- The output should include:
  - Donor Segmentation Strategies
  - Campaign Strategies to Target Gift Acquisition
  - Campaign Strategies to Target Donor Engagement
  - Overall Summary of Campaign Recommendations