Project overview

See the **project submission (https://q.utoronto.ca/courses/204826/assignments/506357** page with **rubric**.

Your final project for STA303 is a consulting project for **Black Saber Software**. You will be analyzing their hiring and employee data and creating a report appropriate for the Board of Directors on the topic of gender parity in hiring, wages and promotion.

Note: Black Saber isn't a real company, it would be **massively reckless** to provide 600 people with employee data with this level of detail. It would be very easy to identify individuals from data like this. That said, this dataset is based on **real** research and employment trends.

Table of Contents

Email from your client

New project? ➤ Inbox ✕

Gideon Blake <g.blake@blacksaber.ca>
to me ▾

Hi,

Thanks again for the great work on the Pax Aurora project last year. I'm reaching out with another piece of

Internally, people have been raising concerns about potential bias in our hiring and remuneration processes
external statisticians take a look and that everything is totally above board. That said, several companies ir
etc. and I want to ensure we're out ahead of any potential issues. Obviously, I value your discretion and dor
project.

I'll be able to provide:

- Hiring data for our new grad program (we have a new selection pipeline that is AI-automated up to
- Data about promotion and salary for our entire staff.

Let me know if you have any questions, **and if you're ready to get the ball rolling, please complete this NI**
data. Would be great if the final deliverable could have a summary targetted for the Board of Directors, as

I assume same fee structure as last time applies? That will be fine on our end. Will pay hourly with a cap at

Best,

Gideon Blake
Chief People Officer | Black Saber Software

Black Saber Software

Instructions: Part 1

Summary of part 1 instructions

- Decide group/individual.
- Create a company name.
- Complete the non-disclosure agreement (NDA; NOT actually legally binding document). (Download
  DOCX (https://q.utoronto.ca/courses/204826/files/13106345/download) or **PDF**

(https://q.utoronto.ca/courses/204826/files/13106344/download) , save as PDD to submit.)

- **Submit consultant information and NDAs to Black Saber's legal team (https://forms.office.com/Pages/ResponsePage.aspx? id=JsKqeAMvTUuQN7RtVsVSEOKHUU3SzAJJhmOKjJhDWEpUQkZMMzJRMDlUMFBPTkk5N0xBMjdWF** .

1. Working as a group/individual

- You can work individually or as a group of 2, 3 or 4 students.
- The section you are enrolled in does not matter, you may work with students across sections/within the same section, etc.
- You can find teammates **with Piazza**   **(https://piazza.com/class/kj98c115q7077t?cid=5)** .
- My hope is that your final deliverable will be something you could include in your portfolio, so perhaps make sure all teammates are okay with publishing this publically at the end.

2. Create a company name

- There are no criteria other than the name should be **professional** (i.e., no rude words, resist puns) and needs to be typable in 'Latin script', i.e., **letters A to Z** (with hyphens/accents if needed, just be careful the symbols can be Knit to pdf.)

3. Sign your NDA

- Non-disclosure agreements are a common legal agreement that consultants often enter into. It will outline who owns what, what can and cannot be shared publicly and a range of other legal points.
- For the purposes of this class, you don't have to worry about the 'legal-ese' and what you're actually agreeing to, because you are NOT actually agreeing to anything. BUT I do think you should see how much you can understand as it is realistic that you might have to comprehend and sign a document like this in future, as a professional.
- If you're working in a team, each member of the team must sign their own version and then one member will submit on behalf of the team.
  - Note, if you have trouble contacting a remember and getting their form, this may be a sign they won't be easy to work with on the project. Likewise, please don't be *that* team member that everyone complains about for not doing any work.
  - If there are team dynamic issues, LET ME KNOW ASAP, I can help you work on a solution, or split up the team (that won't be penalized).

4. Submit

- By Tuesday, Mar 23 at 6:00 p.m. ET, you must submit your group/individual information through **this form**   **(https://forms.office.com/Pages/ResponsePage.aspx? id=JsKqeAMvTUuQN7RtVsVSEOKHUU3SzAJJhmOKjJhDWEpUQkZMMzJRMDlUMFBPTkk5N0xBMjd**

WRU9RUi4u) , including everyone's NDAs. Only ONE member should submit on behalf of the group. If you're working individually, you just submit for yourself.

- If you **do not submit** this information by the required date and time, there will be a **5 percentage point penalty** applied to your final project grade.

Submitting earlier will get you access to the data earlier (starting from Monday, Mar 15.)

What's the deliverable?

Your final submission will be a report that includes:

- a cover page
- an executive summary
- a technical report
- consultant bio(s) and company ethics statement

You will need to answer the **research questions** posed by the client, communicate in ways appropriate to the **audience** for each section of the report, choose **appropriate methods** and create **professional visualisations and tables** to explain your results.

Your report must be written in a **reproducible** Rmd, and you will submit the PDF to Crowdmark and the Rmd and any images/extra data to Quercus for the reproducibility component of your mark.

I will be providing a **template** that you can choose whether or not to use when you receive the data.

Email text for screen readers

Hi,

Thanks again for the great work on the Pax Aurora project last year. I'm reaching out with another piece of work I'm hoping you can take on.

Internally, people have been raising concerns about potential bias in our hiring and remuneration processes. I don't think there is much to it, but I want to be able to report to the Board that we've had external statisticians take a look and that everything is totally above board. That said, several companies in our area have had bad press about this recently, nasty complaints from staff to reporters, etc. and I want to ensure we're out ahead of any potential issues. Obviously, I value your discretion and don't want this mentioned more widely. NDAs will be required from anyone working on the project.

I'll be able to provide: Hiring data for our new grad program (we have a new selection pipeline that is AI-automated up to the final interviews), and Data about promotion and salary for our entire staff. Let me know if you have any questions, and if you're ready to get the ball rolling, please complete this NDA (docx or pdf) and submit them through our NDA portal. After that, I'll reach out with the data.

Would be great if the final deliverable could have a summary targetted for the Board of Directors, as well as a more technical piece for our data team to look over as well.

I assume same fee structure as last time applies? That will be fine on our end. Will pay hourly with a cap at 40 hours unless otherwise discussed.

Best,

Gideon Blake

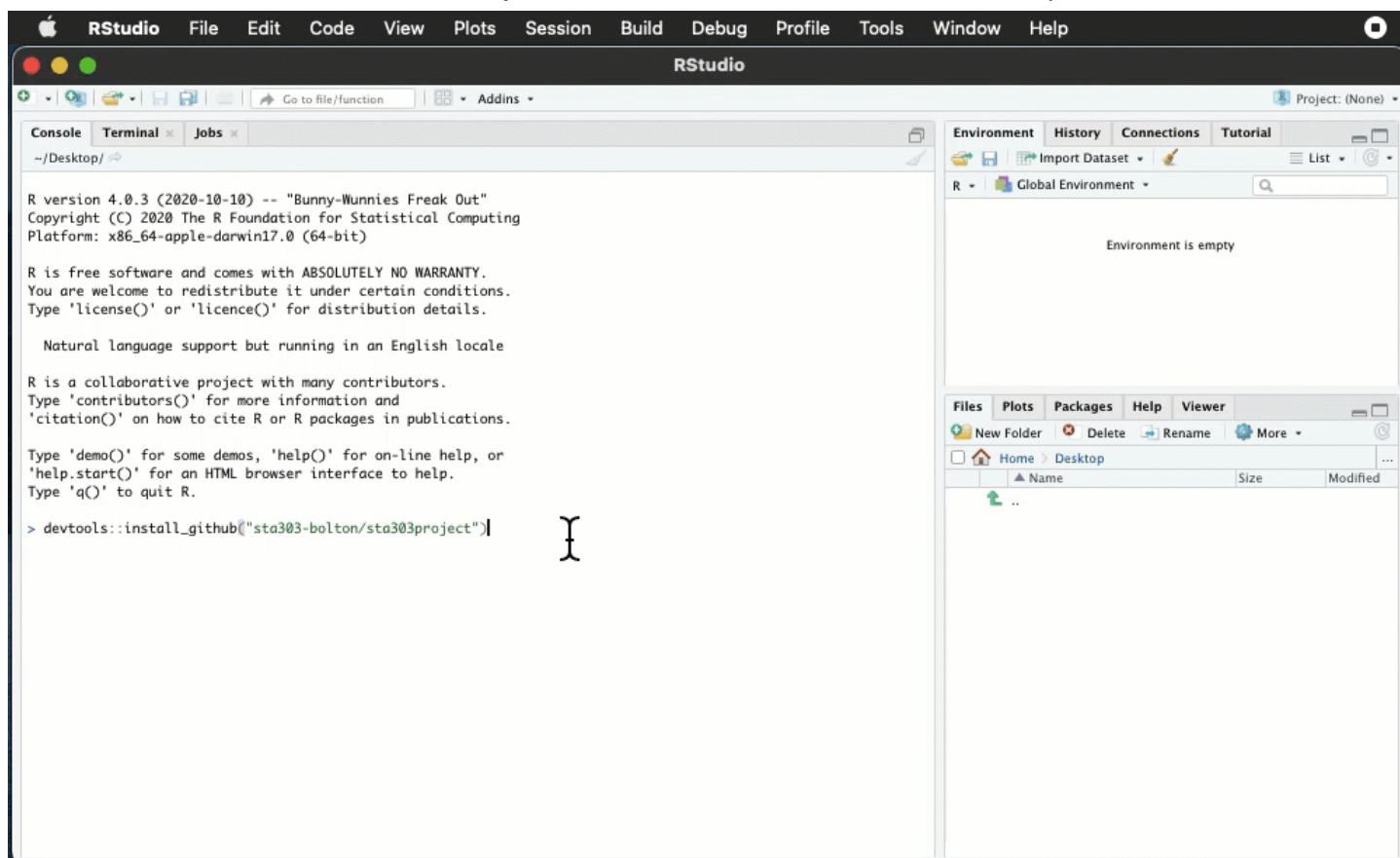Chief People Officer | Black Saber Software

Instructions: Part 2

Email from client

Gideon Blake <g.blake@blacksaber.ca>   11:29 (2 minutes ago)

Install the project package by running: **devtools::install_github("sta303-bolton/sta303project")**

You can view the **data dictionary (https://q.utoronto.ca/courses/204826/files/13464629?wrap=1)** ↓
(https://q.utoronto.ca/courses/204826/files/13464629/download?download_frd=1) here.

See the **Week 10 class slides + recording (https://q.utoronto.ca/courses/204826/pages/course-overview)** for additional information. Rubric coming soon.

Email text for screen readers

Email from Gideon:

Hi again, great to know that you're on board for this project.

The data team set something up for you to get the data. I've forwarded the details they sent, see below, all the descriptions of the data are there.

According to the legal team, it was better to only give you data for our current employees, so those are the only people in that data. Generally, we have a pretty good retention rate, though.

One of my People and Talent guys mentioned that we don't collect data on ethnicity/race but that the team is considering it for EDI initiatives after a conference they went to, and he said it might also be related to salary. Once again, I don't think anything like that will be an issue for us.

The board wants to hear that our hiring, promotion and salary processes are all fair, and based on talent and value to the company. They're especially interested in the hiring pipeline as we've been

trialling an AI service that screens applications and then invites candidates to submit a pre-recorded video that the system rates for relevant features. Candidate sare also invited to do a timed technical coding task and submit a writing sample and these are also assessed by the system. More on that in the docs, too.

Let me know if you have any questions, looking forward to the report on April 21.

Best,

Gideon Blake
Chief People Officer | Black Saber Software

Forwarded email:

Hi G,

The team has prepped the documentation you asked for, the consultants can access the data by running `devtools::install_github("sta303-bolton/sta303project")`. Data dictionary attached.

Best,
V

Valin Hess
VP Data | Black Saber Software