

## Introduction

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Thanks for your interest in participating in our observational study on cannabis use while programming! Based on your pre-screening responses, you appear to be eligible to participate. The next step is this pre-survey which starts with a consent form and then asks some more detailed questions to confirm your eligibility. The consent form will contain more detailed information of the study. You will also be shown a tutorial video, which gets you familiar with the experimental platform. We will also collect some information on your background and cannabis using history. At last, you will complete the scheduling information for the two 1.5 hour sessions at your convenience. The entire survey, together with the tutorial video and the consent form, takes about 20 minutes to complete.

Study ID: [REDACTED] IRB: [REDACTED] Date Approved:  
2/1/2023, [REDACTED]

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## Consent Block

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Please enter your participant ID code (this will be in the email sent to you by the study staff):

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Thank you!

Next, please scroll through and read this consent form. You can also download or print the consent form if that makes it easier to read (e.g., if you are on a mobile device). The PDF is not interactive, so you will need to click the consent question in this survey after viewing the PDF rather than the box in the PDF itself. If you are having trouble scrolling through the multi-page PDF in qualtrics (this sometimes happens on Safari or iOS), you can also access the consent form

here:



If you have additional questions before consenting to participate in this study, please contact the research team:



## CONSENT TO BE PART OF A RESEARCH STUDY

### 1. KEY INFORMATION ABOUT THE RESEARCHERS AND THIS STUDY

**Study title:** Observational Study of Cannabis-Using Programmers

You are invited to take part in a research study. This form contains information that will help you decide whether to join the study.

#### 1.1 Key Information

Things you should know:

- The purpose of the study is to observe the effects of cannabis intoxication on software-related programming activities.
- You are eligible to participate if you are at least 21, know how to program and have used cannabis in the last year, have vaped or smoked cannabis, and have a personal computer you can use to join the study session zoom calls remotely. If you only use cannabis edibles, you are not eligible to participate.
- If you choose to participate, you will first be asked to complete a pre-survey and training video (~15 minutes). After that, you will be asked to attend two remote sessions via Zoom, one while you are intoxicated using cannabis and the other while you are not using cannabis. In each session, you will be asked to complete a set of small programming tasks, three open-ended interview-styled coding questions, and a small number of standardized psychological tests. Each session will take approximately 1.5 hours. You will also be asked to complete a survey about your intoxication level and your experience in the study in each session.

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**Consent to Participate in the Research Study:** By checking this checkbox, you are agreeing to be in this study. Make sure you understand what the study is about before you sign. We will give you a copy of this document for your records and we will keep a copy with the study records. If you have any questions about the study after you sign this document, you can contact the study team using the information in Section 9 provided above.

*I understand what the study is about and my questions so far have been answered. I agree to take part in this study.*

☐ I Consent to participate in this research study, including audio and video

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Date of check (mm/dd/yy):

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**Consent to be Contacted for Participation in Future Research:** Researchers may wish to keep your contact information to invite you to be in future research projects that may be similar to or completely different from this research project.

- ☐ Yes, I agree for the researchers to contact me for future research projects.
- ☐ No, I do not agree for the researchers to contact me for future research projects.

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### General Demographics

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We will first ask you some demographic questions.

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To which gender identity do you most identify?

- ☐ Women
- ☐ Man
- ☐ Non-binary / third gender
- ☐ Prefer not to say
- ☐ Not listed

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What is your sex?

- ☐ Male
- ☐ Female
- ☐ Intersex
-

How old are you? (In years)

What's your approximate weight in pounds? (We ask about this because body mass is one of the medical factors relevant to drug impact.)

Which category best describes your race or ethnic group? One or more categories may be marked.

- ☐ American Indian/Alaska Native
- ☐ Asian
- ☐ Black/African American
- ☐ Hispanic or latino
- ☐ Native Hawaiian/Other Pacific Islander
- ☐ White/Caucasian
- ☐  Other

What best describes your current employment status? [select all that apply]

- ☐ Undergraduate Student in a computing-related field
- ☐ Undergraduate student in another field
- ☐ Graduate student in a computing-related field
- ☐ Graduate student in another field
- ☐ Full-time/Part-time job in Computer Science related fields
- ☐ Full-time/Part-time job in other fields
- ☐ Unemployed

☐ None of the above

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## General Programming History

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We will now ask you some questions about your programming background.

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How many years of programming experience do you have?

- ☐ Less than 1 year
  - ☐ 1 -2 years
  - ☐ 3 - 5 years
  - ☐ 6 - 10 years
  - ☐ 11 - 20 years
  - ☐ 21 - 30 years
  - ☐ Over 30 years
- 

What formal programming education have you completed? [select all that apply]

- ☐ One or more high school programming courses
  - ☐ One or more college-level programming courses
  - ☐ One or more coding bootcamps
  - ☐ I have a Bachelors degree in computer science or a related field
  - ☐ I have a Masters degree in computer science or a related field
  - ☐ I have a doctorate degree in computer science or a related field
  - ☐ I am self-taught
- 

Have you ever either read or written programs as part of a work or employment role?

- ☐ Yes
- ☐ No
- ☐ No, but I am currently applying for programming-related jobs
- ☐ No, but I will apply for programming-related jobs in the future
- 

How many years of professional programming experience do you have?

- ☐ less than 1 year
- ☐ 1 – 5 years
- ☐ 5 – 10 years
- ☐ 10 – 20 years
- ☐ More than 20 years
- 

Please select all programming-related employment positions you **have ever held**:

- |  |  |
|--|--|
| <input type="checkbox"/> Computer Science / Programming Instructor | <input type="checkbox"/> Product Manager                 |
| <input type="checkbox"/> Computer Science Researcher               | <input type="checkbox"/> Quality Assurance Engineer      |
| <input type="checkbox"/> Data Analyst                              | <input type="checkbox"/> Self-employed                   |
| <input type="checkbox"/> Data Scientist or Engineer                | <input type="checkbox"/> Software Developer / Programmer |
| <input type="checkbox"/> Freelance Developer                       | <input type="checkbox"/> Software Engineer               |
| <input type="checkbox"/> Front End Developer                       | <input type="checkbox"/> Systems Engineer                |
| <input type="checkbox"/> Information Technologies (IT)             | <input type="checkbox"/> Web Developer                   |
| <input type="checkbox"/> Open Source Developer                     | <input type="checkbox"/> Other (please describe)         |
|  | <input type="text"/>                                     |
- 

**Python - Leetcode history**

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Have you ever done "LeetCode" style coding interview problems before? [Select all that apply]

- ☐ Yes - I have done "LeetCode" style problems in an interview for a programming-related job
  - ☐ Yes - I have done "LeetCode" style problems in non interview settings (e.g., self-directed practice, course assignment, etc.)
  - ☐ No - I have heard of "LeetCode" style problems, but I have never done any myself
  - ☐ No - I have never heard of "LeetCode" style programming problems
- 

About how many "LeetCode" style programming problems have you done?

- ☐ Over 50
  - ☐ 26 - 50
  - ☐ 10 - 25
  - ☐ 5 - 10
  - ☐ 1 - 5
- 

Have you ever used Python to solve "LeetCode" style problems?

- ☐ Yes
  - ☐ No
- 

How confident do you feel regarding your ability to complete "LeetCode" style coding problems?

- ☐ Very Confident
- ☐ A little Confident
- ☐ Unsure
- ☐ Not Confident



☐ Very not Confident

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## General Cannabis Usage Patterns: DFAQ-CU

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We will now ask you questions regarding your general cannabis usage history.

*Note that the term cannabis is used to refer to marijuana, cannabis concentrates, and cannabis-infused edibles.*

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Have you ever used cannabis?

☐ Yes

☐ No

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Which of the following best captures when you last used cannabis?

☐ over a year ago

☐ 9 – 12 months ago

☐ 6 – 9 months ago

☐ 3 – 6 months ago

☐ 1 – 3 months ago

☐ less than 1 month ago

☐ last week

☐ this week

☐ yesterday

☐ today

☐ I am currently high

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How high are you right now?

☐ I am not at all high

☐ I am a little bit high

☐ I am moderately high

- ☐ I am very high
  - ☐ I am extremely high
- 

Which of the following best captures the average frequency you currently use cannabis?

- |  |  |
|--|--|
| <input type="radio"/> I do not use cannabis                | <input type="radio"/> once a week          |
| <input type="radio"/> less than once a year                | <input type="radio"/> twice a week         |
| <input type="radio"/> once a year                          | <input type="radio"/> 3 – 4 times a week   |
| <input type="radio"/> once every 3-6 months (2-4 times/yr) | <input type="radio"/> 5 – 6 times a week   |
| <input type="radio"/> once every 2 months (6 times/yr)     | <input type="radio"/> once a day           |
| <input type="radio"/> once a month (12 times/yr)           | <input type="radio"/> more than once a day |
| <input type="radio"/> 2 – 3 times a month                  |  |
- 

Which of the following best captures how long you have been using cannabis **at this frequency**?

- |   |  |
|---|--|
| <input type="radio"/> less than 1 month | <input type="radio"/> 2 – 3 years        |
| <input type="radio"/> 1 – 3 months      | <input type="radio"/> 3 – 5 years        |
| <input type="radio"/> 3 – 6 months      | <input type="radio"/> 5 – 10 years       |
| <input type="radio"/> 6 – 9 months      | <input type="radio"/> 10 – 15 years      |
| <input type="radio"/> 9 – 12 months     | <input type="radio"/> 15 – 20 years      |
| <input type="radio"/> 1 – 2 years       | <input type="radio"/> more than 20 years |
- 

Before the period of time you indicated above, how frequently did you use cannabis?

- |  |  |
|--|--|
| <input type="radio"/> I did not use cannabis | <input type="radio"/> once a week        |
| <input type="radio"/> less than once a year  | <input type="radio"/> twice a week       |
| <input type="radio"/> once a year            | <input type="radio"/> 3 – 4 times a week |

- |  |  |
|--|--|
| <input type="radio"/> once every 3-6 months (2-4 times/yr) | <input type="radio"/> 5 – 6 times a week   |
| <input type="radio"/> once every 2 months (6 times/yr)     | <input type="radio"/> once a day           |
| <input type="radio"/> once a month (12 times/yr)           | <input type="radio"/> more than once a day |
| <input type="radio"/> 2 – 3 times a month                  |  |
- 

How many days of the past week did you use cannabis?

- ☐ 0 days
  - ☐ 1 day
  - ☐ 2 days
  - ☐ 3 days
  - ☐ 4 days
  - ☐ 5 days
  - ☐ 6 days
  - ☐ 7 days
- 

Approximately how many days of the past month did you use cannabis?

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Which of the following best captures the number of times you have used cannabis in your entire life?

- |  |   |
|--|---|
| <input type="radio"/> 1 – 5 times in my life     | <input type="radio"/> 501 – 1000 times in my life       |
| <input type="radio"/> 6 – 10 times in my life    | <input type="radio"/> 1001 – 2000 times in my life      |
| <input type="radio"/> 11 – 50 times in my life   | <input type="radio"/> 2001 – 5000 times in my life      |
| <input type="radio"/> 51 – 100 times in my life  | <input type="radio"/> 5001 – 10,000 times in my life    |
| <input type="radio"/> 101 – 500 times in my life | <input type="radio"/> More than 10,000 times in my life |

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Which of the following best captures your pattern of cannabis use throughout the week?

- ☐ I do not use cannabis at all
  - ☐ I only use cannabis on weekends
  - ☐ I only use cannabis on weekdays
  - ☐ I use cannabis on weekends and weekdays
- 

How many hours after waking up do you typically first use cannabis?

- |   |   |
|---|---|
| <input type="radio"/> I do not use cannabis at all  | <input type="radio"/> 1 – 3 hours after waking up |
| <input type="radio"/> 12 – 18 hours after waking up | <input type="radio"/> within 1 hour of waking up  |
| <input type="radio"/> 9 – 12 hours after waking up  | <input type="radio"/> within ½ hour of waking up  |
| <input type="radio"/> 6 – 9 hours after waking up   | <input type="radio"/> immediately upon waking up  |
| <input type="radio"/> 3 – 6 hours after waking up   |   |
- 

How many times a day, on a typical **weekday**, do you use cannabis?

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How many times a day, on a typical **weekend**, do you use cannabis?

---

What is the **primary method** you use to ingest cannabis?

- |   |   |
|---|---|
| <input type="radio"/> I do not use cannabis       | <input type="radio"/> Hookah                              |
| <input type="radio"/> Joints                      | <input type="radio"/> Vaporizer (e.g., Volcano, Vape pen) |
| <input type="radio"/> Blunts (cigar sized joints) | <input type="radio"/> Edibles                             |

☐ Hand pipe

☐ Other

☐ Bong (water pipe)

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Which of the following other methods to ingest cannabis do you use **regularly** (at least 25% of the time use you cannabis)? [Mark all that apply]

☐ I do not use cannabis

☐ Hookah

☐ Joints

☐ Vaporizer (e.g., Volcano, Vape pen)

☐ Blunts (cigar sized joints)

☐ Edibles

☐ Hand pipe

☐ Other

☐ Bong (water pipe)

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What is the **primary form** of cannabis you use?

☐ None

☐ Marijuana

☐ Concentrates (e.g., Oil, Wax, Shatter, Butane Hash Oil, Dabs)

☐ Edibles

☐  Other

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What other forms of cannabis do you use **regularly** (at least 25% of the time you use cannabis)? [Mark all that apply]

☐ None

☐ Marijuana

☐ Concentrates (e.g., Oil, Wax, Shatter, Butane Hash Oil, Dabs)

☐ Edibles

☐  Other

Please use the image below to refer to various quantities of marijuana. The image is not to scale; the dollar bill is included to help provide size perspective.



For questions 17 to 19 below, clearly indicate the number of grams of marijuana you use with a number between 0 – 100. Do NOT include other forms of cannabis you may use (such as concentrates). You may use up to 3 decimals to indicate amounts under 1 gram.

Note:  $\frac{1}{8}$  of a gram = 0.125 grams,  $\frac{1}{4}$  of a gram = 0.25 grams,  $\frac{1}{2}$  of a gram = 0.5 grams,  $\frac{3}{4}$  of a gram = 0.75 grams.  $\frac{1}{8}$  of an ounce = 3.5 grams,  $\frac{1}{4}$  of an ounce = 7 grams,  $\frac{1}{2}$  ounce = 14 grams, 1 ounce = 28 grams

In a typical session, how much marijuana do you personally use? **(Leave blank if you do not know.)**

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On a typical day you use marijuana, how much do you personally use? **(Leave blank if you do not know.)**

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In a typical week you use marijuana, how much marijuana do you personally use? **(Leave blank if you do not know.)**

---

On a typical day you use marijuana, how many sessions do you have?

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What is the average THC content of the marijuana you typically use? **(Leave blank if you do not know.)**

- ☐ 0 – 4%
- ☐ 5 – 9%
- ☐ 10 – 14%
- ☐ 15 – 19%
- ☐ 20 – 24%
- ☐ 25 – 30%
- ☐ greater than 30%

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In a typical session you use cannabis concentrates, how many hits do you personally take?

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On a typical day you use cannabis concentrates, how many hits do you personally take?

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How many hits of cannabis concentrates did you personally take yesterday?

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On a typical day you use cannabis concentrates, how many sessions do you have?

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What is the average THC content of the concentrates you typically use? **(Leave blank if you do not know.)**

- ☐ 0 – 9%
  - ☐ 10 – 19%
  - ☐ 20 – 29%
  - ☐ 30 – 39%
  - ☐ 40 – 49%
  - ☐ 50 – 59%
  - ☐ 60 – 69%
  - ☐ 70 – 79%
  - ☐ 80 – 90%
  - ☐ greater than 90%
-



Has there been any time in your life when you used cannabis regularly (2 or more times per month for 6 months or longer)?

- ☐ Yes
  - ☐ No
- 

Has there been any time in your life when you used cannabis on a daily or near daily basis for 6 months or longer?

- ☐ Yes
  - ☐ No
- 

### **Cannabis and Programming**

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We will now ask you questions regarding your programming-specific cannabis usage history.

Have you ever used cannabis while programming?

- ☐ Yes
  - ☐ No
- 

Which of the following best captures the number of times you have used cannabis while programming in your entire life?

- |   |   |
|---|---|
| <input type="radio"/> 1 – 5 times in my life    | <input type="radio"/> 101 – 500 times in my life      |
| <input type="radio"/> 6 – 10 times in my life   | <input type="radio"/> 501 – 1000 times in my life     |
| <input type="radio"/> 11 – 50 times in my life  | <input type="radio"/> More than 1000 times in my life |
| <input type="radio"/> 51 – 100 times in my life |   |

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Which of the following best captures the average frequency you **currently** use cannabis while programming, coding, or completing any other software engineering-related task?

- |  |  |
|--|--|
| <input type="radio"/> I do not use cannabis                | <input type="radio"/> once a week          |
| <input type="radio"/> less than once a year                | <input type="radio"/> twice a week         |
| <input type="radio"/> once a year                          | <input type="radio"/> 3 – 4 times a week   |
| <input type="radio"/> once every 3-6 months (2-4 times/yr) | <input type="radio"/> 5 – 6 times a week   |
| <input type="radio"/> once every 2 months (6 times/yr)     | <input type="radio"/> once a day           |
| <input type="radio"/> once a month (12 times/yr)           | <input type="radio"/> more than once a day |
| <input type="radio"/> 2 – 3 times a month                  |  |
- 

Has there been any time in your life when you used cannabis regularly while programming, coding, or completing any other software engineering-related task (2 or more times per month for 6 months or longer)?

- ☐ Yes
- ☐ No
- 

When using cannabis while programming, what percentage of the time do you use the following administration methods? (numbers must add to 100)

Smoking	<input type="text" value="0"/>
Vaping	<input type="text" value="0"/>
Edibles	<input type="text" value="0"/>
Other (please describe) <input type="text"/>	<input type="text" value="0"/>
Total	<input type="text" value="0"/>

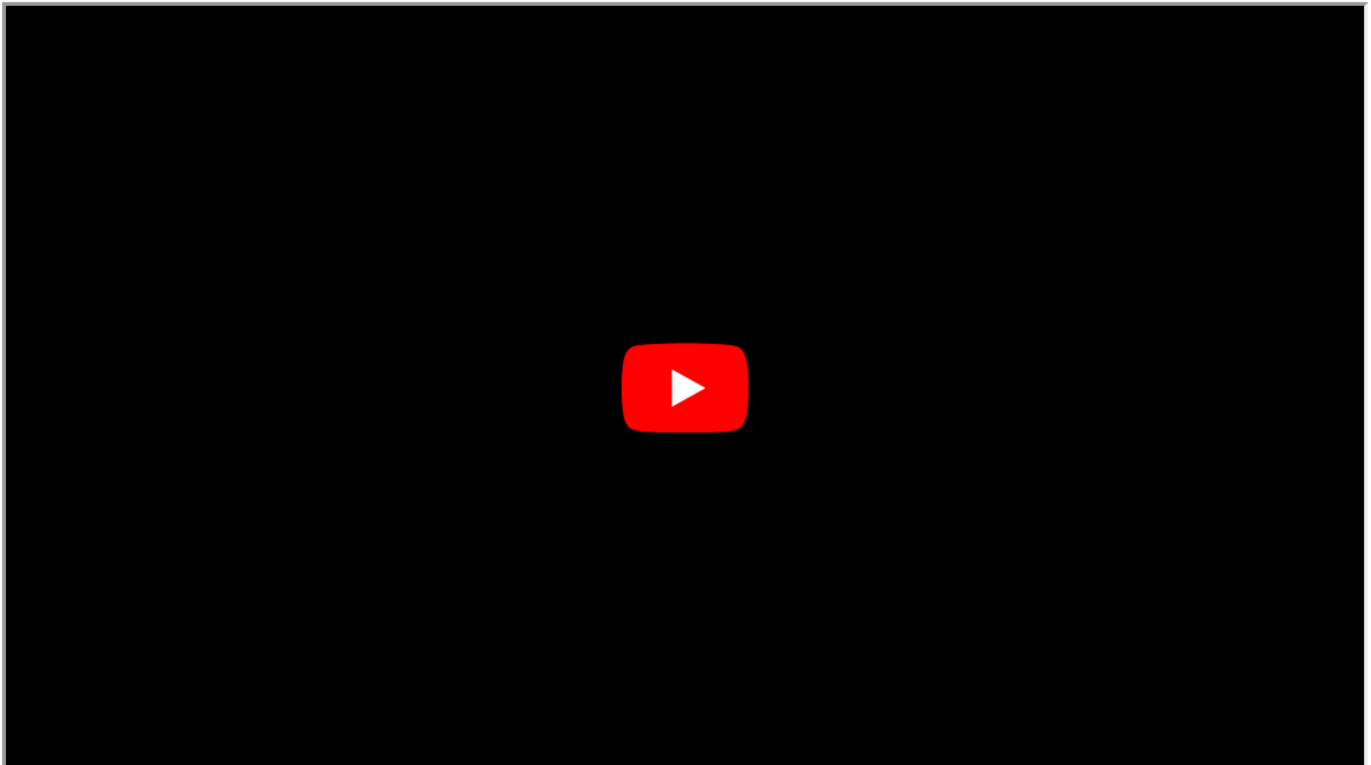
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## Tutorial Video

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Thank you for filling out all of the demographics and background questions. Next, please watch this tutorial video. The video is 4 minutes long. It helps you get familiar with the coding platform you will be using during the two sessions. You are encouraged to familiarize yourself again with this video before your first session.

If the video is too small, feel free to click on the YouTube logo to watch on YouTube rather than in the survey itself.



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## SchedulingIntro

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### Session Scheduling

Thank you for completing the background and training information! The last step in this

survey is to schedule the two programming sessions. Each session will be booked for 1.5 hours.

You have been randomly assigned to the "Sober First" condition. As a result, we will ask that you are sober for your first programming session and that you have vaped or smoked cannabis before your second programming session. On the next page, please use the scheduler to book your first session.

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### **Session Scheduling**

Thank you for completing the background and training information! The last step in this survey is to schedule the two programming sessions. Each session will be booked for 1.5 hours.

You have been randomly assigned to the "Cannabis First" condition. As a result, we will ask that you have vaped or smoked cannabis before your first programming session, and that you are sober before your second programming session. On the next page, please use the scheduler to book your first session.

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### **SchedulingSober**

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Please click the scheduling app below and then choose your preferred time for the **sober session**. You will get an email confirming the time of your appointment. You will also get a calendar invite titled "Study Session for [REDACTED] Programming Observational Study". The appointment will take place over zoom.

If you are having trouble accessing the embedded calendar below, you can also access the scheduling link [REDACTED] If you'd prefer a different method of scheduling your session or have any questions, please reach out to the study team [REDACTED]



I'm not a robot

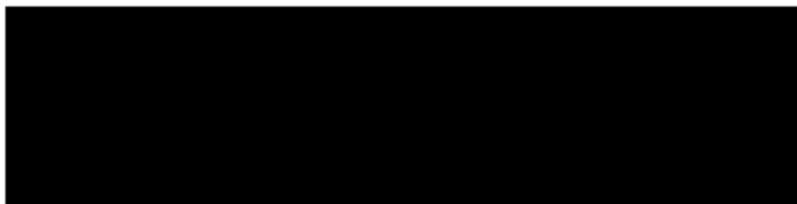


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## Scheduling Connector

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Thank you for scheduling the first session! On the next page, you will schedule the second session. **Please schedule this second session for some day and time after the session you just scheduled.**

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## SchedulingHigh

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Please click the scheduling app below and then choose your preferred **intoxicated session**. Once the session is booked, you will get an email confirming the time of your

For the intoxicated session, please schedule at a time when you will be in a location where you feel comfortable consuming cannabis and don't have to travel for at least 2 hours after the session. We will ask you to verbally confirm you are in a safe location at the beginning of the session. 5-10 minutes before the session, you will be asked to vape or smoke cannabis and send us a picture of the product that you used. More details about this will be in the email we send you confirming your intoxicated session time.

If you are having trouble accessing the embedded calendar below, you can also access the

If you'd prefer a  
please reach out to the



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