

1. Invitation to P01

As part of a research we are doing at the <<university>>, we are trying to formulate a theory on how developers compare between multiple competing third competing libraries.

We believe that with your remarkable professional experienced, we could get valuable insight in this API comparison process.

To this end, we would like to invite you for a semi-structured interview.

Here is the basic information of the interview:

- Meeting Tool: Microsoft Teams
- Duration: approximately 45 minutes
- Discussion Language: English
- Recording: Audio ON, Video optional

The nature of the interview is exploratory and open-ended where we would follow the discussion path as you respond.

To facilitate the discussion, we have few questions in mind just to help us navigate:

1. Can you tell us few libraries that you had to compare in your career?
2. What are the steps of this library comparison and selection process
3. How much time is taken in each step
4. How the search (for available libraries) is performed internally and externally (Google/Bing or Q&A site specific search)
5. What external websites is most helpful for API comparison?
6. What type of opinions are most helpful for API selection
7. What are the factors and weights of the factors during API comparison?
8. Who influences the selection process
9. Who takes the final decision?
10. What environmental (organizational/industry etc.) factors impact API selection
11. What individual characteristics affect API selection

In addition to this, we would like to know following information about you and your organizations (where you had to choose a library):

- Year of professional experience
- Your Primary role
- Your primary application domain
- Size of your company (total headcount, engineering headcount)
- Primary domain/industry of your organization

We cordially thank you for accepting our invitation and supporting us in this impactful research.

Regards,

2. Invitation to P02

As part of a research we are doing at the <<university>>, we are trying to formulate a theory on how developers compare between multiple competing third competing libraries.

We believe that with your remarkable professional experience, we could get valuable insight in this API comparison process. To this end, we would like to invite you for a semi-structured interview.

Here is the basic information of the interview:

- Meeting Tool: Microsoft Teams
- Duration: approximately 45~60 minutes
- Discussion Language: English
- Recording: Audio ON, Video optional

The nature of the interview is exploratory and open-ended where we would follow the discussion path as you respond.

To facilitate the discussion, we have few questions in mind just to help us navigate:

1. Can you tell us few libraries that you had to compare in your career?
2. What are the steps of this library comparison and selection process
3. How much time is taken in each step
4. How the search (for available libraries) is performed internally and externally (Google/Bing or Q&A site specific search)
5. What external websites is most helpful for API comparison?
6. What type of opinions are most helpful for API selection
7. What are the factors and weights of the factors during API comparison?
8. Who influences the selection process
9. Who takes the final decision?
10. What environmental (organizational/industry etc.) factors impact API selection
11. What individual characteristics affect API selection

In addition to this, we would like to know following information about you and your organizations (where you had to choose a library):

- Year of professional experience
- Your primary role
- Your primary application domain
- Size of your company (total headcount, engineering headcount)
- Primary domain/industry of your organization

We cordially thank you for accepting our invitation and supporting us in this impactful research.

Regards,

3. Invitation to P03

As part of a research we are doing at the <<university>>, we are trying to formulate a theory on how developers compare between multiple competing third competing libraries.

We believe that with your remarkable professional experience, we could get valuable insight in this API comparison process. To this end, we would like to invite you for a semi-structured interview.

Here is the basic information of the interview:

- Meeting Tool: Microsoft Teams
- Duration: approximately 45~60 minutes
- Discussion Language: English
- Recording: Audio ON, Video optional

The nature of the interview is exploratory and open-ended where we would follow the discussion path as you respond. To facilitate the discussion, we have few questions in mind just to help us navigate:

1. Can you tell us few libraries that you had to compare in your career?
2. What are the steps of this library comparison and selection process
3. How much time is taken in each step
4. How the search (for available libraries) is performed internally and externally (Google/Bing or Q&A site specific search)
5. What external websites is most helpful for API comparison?
6. What type of opinions are most helpful for API selection
7. What are the factors and weights of the factors during API comparison?
8. Who influences the selection process
9. Who takes the final decision?
10. What environmental (organizational/industry etc.) factors impact API selection
11. What individual characteristics affect API selection

In addition to this, we would like to know following information about you and your organizations (where you had to choose a library):

- Year of professional experience
- Your primary role
- Your primary application domain
- Size of your company (total headcount, engineering headcount)
- Primary domain/industry of your organization

We cordially thank you for accepting our invitation and supporting us in this impactful research.

Regards,

4. Invitation to P04

As part of a research we are doing at the <<university>>, we are trying to formulate a theory on how developers compare between multiple competing third competing libraries.

We believe that with your remarkable engineering and leadership experience, we could get valuable insight in this API comparison process.

To this end, we would like to invite you for a semi-structured interview.

Here is the basic information of the interview:

- Meeting Tool: Microsoft Teams
- Duration: approximately 45~60 minutes
- Discussion Language: English
- Recording: Audio ON, Video optional

The nature of the interview is exploratory and open-ended where we would follow the discussion path as you respond.

To facilitate the discussion, we have few questions in mind just to help us navigate:

1. Can you tell us few libraries that you had to compare in your career?
2. What are the steps of this library comparison and selection process
3. How much time is taken in each step
4. How the search (for available libraries) is performed internally and externally (Google/Bing or Q&A site specific search)
5. What external websites is most helpful for API comparison?
6. What type of opinions are most helpful for API selection
7. What are the factors and weights of the factors during API comparison?
8. Who influences the selection process
9. Who takes the final decision?
10. What environmental (organizational/industry etc.) factors impact API selection
11. What individual characteristics affect API selection

In addition to this, we would like to know following information about you and your organizations (where you had to choose a library):

- Year of professional experience
- Your primary role
- Your primary application domain
- Size of your company (total headcount, engineering headcount)
- Primary domain/industry of your organization

We cordially thank you for accepting our invitation and supporting us in this potential research.

Regards,
Tanzil

5. Invitation to P05

As part of a research we are doing at the <<university>>, we are trying to formulate a theory on how developers compare between multiple competing third competing libraries.

We believe that with your remarkable engineering and leadership experience, we could get valuable insight in this API comparison process.

To this end, we would like to invite you for a semi-structured interview.

Here is the basic information of the interview:

- Meeting Tool: Microsoft Teams
- Duration: approximately 45~60 minutes
- Discussion Language: English
- **Recording: Audio ON, Video optional**

The nature of the interview is exploratory and open-ended where we would follow the discussion path as you respond. To facilitate the discussion, we have few questions in mind just to help us navigate:

1. Can you tell us few libraries that you had to compare in your career?
2. What are the steps of this library comparison and selection process
3. How much time is taken in each step
4. How the search (for available libraries) is performed internally and externally (Google/Bing or Q&A site specific search)
5. What external websites is most helpful for API comparison?
6. What type of opinions are most helpful for API selection
7. What are the factors and weights of the factors during API comparison?
8. Who influences the selection process
9. Who takes the final decision?
10. What environmental (organizational/industry etc.) factors impact API selection
11. What individual characteristics affect API selection

In addition to this, we would like to know following information about you and your organizations (where you had to choose a library):

- Year of professional experience
- Your primary role
- Your primary application domain
- Size of your company (total headcount, engineering headcount)
- Primary domain/industry of your organization

We cordially thank you for accepting our invitation and supporting us in this potential research.

Regards,

6. Invitation to P06

As part of my research supervised by Dr. Gias Uddin, we are trying to formulate a model on how developers compare between multiple competing third competing libraries.

We believe that with your remarkable experience regarding open source software projects, we could get valuable insight in this library comparison process.

To this end, we would like to invite you for a semi-structured interview.

Here is the basic information of the interview:

- Meeting Tool: Microsoft Teams
- Duration: approximately 45~60 minutes
- Discussion Language: English
- Recording: Audio ON, Video optional

The nature of the interview is exploratory and open-ended where we would follow the discussion path as you respond. We would love to hear your feedback both from a practitioner and an academician point of view.

To facilitate the discussion, we have few questions in mind just to help us navigate:

1. Can you tell us few libraries that you had to compare in your professional career?
2. What are the steps of this library comparison and selection process
3. How much time is taken in each step
4. How the search (for available libraries) is performed internally and externally (Google/Bing or Q&A site specific search)
5. What external websites is most helpful for API comparison?
6. What type of opinions are most helpful for API selection
7. What are the factors and weights of the factors during API comparison?
8. Who influences the selection process
9. Who takes the final decision?
10. What environmental (organizational/industry etc.) factors impact API selection
11. What individual (personal) characteristics affect API selection

We would also like to hear your opinion on:

- a) why the teams or organizations open source their libraries and
- b) what kind of short term and long term benefit they expect and extract from it.
- c) is their any kind of promotional activities you observe for popularizing their libraries by the developer organizations (e.g., Google promoting their JSON library Gson, Apache promoting their http-connection pool library etc.)
- d) do the big corporations (or other organizations as well) use their libraries as marketing tool to attract larger audience/developer into their ecosystem?

In addition to this, we would like to know following information about you and your organizations (where you had to choose a library):

- Year of professional experience
- Your primary role
- Your primary application domain
- Size of your company (total headcount, engineering headcount)
- Primary domain/industry of your organization

We cordially thank you for accepting our invitation and supporting us in this potential research.

Regards,

7. Invitation to P07

As part of a research we are doing at the <<university>>, we are trying to formulate a theory on how developers compare between multiple competing third competing libraries.

We believe that with your remarkable engineering and leadership experience, we could get valuable insight in this API comparison process.

To this end, we would like to invite you for a semi-structured interview.

Here is the basic information of the interview:

- Meeting Tool: Microsoft Teams
- Duration: approximately 45~60 minutes
- Discussion Language: English
- Recording: Audio ON, Video optional

The nature of the interview is exploratory and open-ended where we would follow the discussion path as you respond. To facilitate the discussion, we have few questions in mind just to help us navigate:

1. Can you tell us few libraries that you had to compare in your career?
2. What are the steps of this library comparison and selection process
3. How much time is taken in each step
4. How the search (for available libraries) is performed internally and externally (Google/Bing or Q&A site specific search)
5. What external websites is most helpful for API comparison?
6. What type of opinions are most helpful for API selection
7. What are the factors and weights of the factors during API comparison?
8. Who influences the selection process
9. Who takes the final decision?
10. What environmental (organizational/industry etc.) factors impact API selection
11. What individual characteristics affect API selection

In addition to this, we would like to know following information about you and your organizations (where you had to choose a library):

- Year of professional experience
- Your primary role
- Your primary application domain
- Size of your company (total headcount, engineering headcount)
- Primary domain/industry of your organization

We cordially thank you for accepting our invitation and supporting us in this potential research.

Regards,

8. Invitation to P08

As part of a research we are doing at the <<university>>, we are trying to formulate a theory on how developers compare between multiple competing third competing libraries.

We believe that with your remarkable professional experience, we could get valuable insight in this API comparison process. To this end, we would like to invite you for a semi-structured interview.

Here is the basic information of the interview:

- Meeting Tool: Microsoft Teams
- Duration: approximately 45~60 minutes
- Discussion Language: English
- Recording: Audio ON, Video optional

The nature of the interview is exploratory and open-ended where we would follow the discussion path as you respond.

To facilitate the discussion, we have few questions in mind just to help us navigate:

1. Can you tell us few libraries that you had to compare in your career?
2. What are the steps of this library comparison and selection process
3. How much time is taken in each step
4. How the search (for available libraries) is performed internally and externally (Google/Bing or Q&A site specific search)
5. What external websites is most helpful for API comparison?
6. What type of opinions are most helpful for API selection
7. What are the factors and weights of the factors during API comparison?
8. Who influences the selection process
9. Who takes the final decision?
10. What environmental (organizational/industry etc.) factors impact API selection
11. What individual characteristics affect API selection

In addition to this, we would like to know following information about you and your organizations (where you had to choose a library):

- Year of professional experience
- Your primary role
- Your primary application domain
- Size of your company (total headcount, engineering headcount)
- Primary domain/industry of your organization

We cordially thank you for accepting our invitation and supporting us in this impactful research.

Regards,

9. Invitation to P09

As part of a research we are doing at the <<university>> (<https://giasuddin.ca/disa-lab/>), we are trying to formulate a theory on how developers compare between multiple competing third party libraries. We believe that with your remarkable global professional experience, we could get valuable insight in this API comparison process.

To this end, we would like to invite you for a semi-structured interview.

Here is the basic information of the interview:

- Meeting Tool: Microsoft Teams
- Duration: approximately 45~60 minutes
- Discussion Language: English
- Recording: Audio ON, Video preferred

(Recording with MS Teams is needed for us for automated transcription which saves us a lot of manual work.)

The nature of the interview is exploratory and open-ended where we would follow the discussion path as you respond.

At the beginning of the discussion, we would like to know about you and your organizations (where you had to choose a library):

- Your primary role
- Your primary application domain
- Size of your company (total headcount, engineering headcount)
- Primary domain/industry of your organization

To facilitate the main discussion, we have few questions in mind just to help us navigate:

1. Can you tell us few libraries that you had to compare in your career?
2. When you had to select the libraries, did you have any pattern of scenarios such as for migration to a different tech stack (Php to Java), or to different library, or for up-gradation of OS etc.?
3. What are the steps of this library comparison and selection process
4. How much time is taken in each step

5. How the search (for available libraries) is performed internally and externally (Google/Bing or Q&A site specific search)
6. What external websites is most helpful for API comparison?
7. What type of opinions are most helpful for API selection
8. What are the factors and weights of the factors during API comparison?
9. Who influences the selection process
10. Who takes the final decision?
11. What environmental (organizational/industry etc.) factors impact API selection
12. What individual characteristics affect API selection

At the end of the discussion, we would like to demonstrate a prototype of a comparison tool that we are envisioning to build and would highly appreciate your suggestion from a practitioners' perspective.

We cordially thank you for accepting our invitation and supporting us in this impactful research.

Here is the [link to interview consent form](#) to be signed by you that was approved by Research Ethics Board of the <<university>>. Please up the form with your information and consent and reply back.

Regards,

10. Invitation to P10

As part of a research we are doing at the <<university>>, we are trying to formulate a theory on how developers compare between multiple competing third party libraries. We believe that with your remarkable global professional experience, we could get valuable insight in this API comparison process.

To this end, we would like to invite you for a semi-structured interview.

Here is the basic information of the interview:

- Meeting Tool: Microsoft Teams
- Duration: approximately 45~60 minutes

- Discussion Language: English
- Recording: Audio ON, Video preferred

(Recording with MS Teams is needed for us for automated transcription which saves us a lot of manual work.)

The nature of the interview is exploratory and open-ended where we would follow the discussion path as you respond.

At the beginning of the discussion, we would like to know about you and your organizations (where you had to choose a library):

- Your primary role
- Your primary application domain
- Size of your company (total headcount, engineering headcount)
- Primary domain/industry of your organization

To facilitate the main discussion, we have few questions in mind just to help us navigate:

1. Can you tell us few libraries that you had to compare in your career?
2. When you had to select the libraries, did you have any pattern of scenarios such as for migration to a different tech stack (Php to Java), or to different library, or for up-gradation of OS etc.?
3. What are the steps of this library comparison and selection process
4. How much time is taken in each step
5. How the search (for available libraries) is performed internally and externally (Google/Bing or Q&A site specific search)
6. What external websites is most helpful for API comparison?
7. What type of opinions are most helpful for API selection
8. What are the factors and weights of the factors during API comparison?
9. Do you think there is any different kinds of factors for machine learning or visualization applications?
10. Who influences the selection process?
11. Who takes the final decision?
12. What environmental (organizational/industry etc.) factors impact API selection
13. What individual characteristics affect API selection

At the end of the discussion, we would like to demonstrate a prototype of a comparison tool that we are envisioning to build and would highly appreciate your suggestion from a practitioners' perspective.

We cordially thank you for accepting our invitation and supporting us in this impactful research.

Here is the [link to interview consent form](#) to be signed by you that was approved by Research Ethics Board of the <<university>>. Please fill up the form with your information and consent and reply back.

Regards,

11. Invitation to P11

As part of a research we are doing at the <<university>>, we are trying to formulate a theory on how developers compare between multiple competing third party libraries. We believe that with your remarkable experience, specially in machine learning, we could get valuable insight in this API comparison process.

To this end, we would like to invite you for a semi-structured interview.

Here is the basic information of the interview:

- Meeting Tool: Microsoft Teams
- Duration: approximately 45~60 minutes
- Discussion Language: English
- Recording: Audio ON, Video preferred

(Recording with MS Teams is needed for us for automated transcription which saves us a lot of manual work.)

The nature of the interview is exploratory and open-ended where we would follow the discussion path as you respond.

At the beginning of the discussion, we would like to know about you and your organizations (where you had to choose a library):

- Your primary role
- Your primary application domain
- Size of your company (total headcount, engineering headcount)
- Primary domain/industry of your organization

To facilitate the main discussion, we have few questions in mind just to help us navigate:

1. Can you tell us few libraries that you had to compare in your career?
2. When you had to select the libraries, did you have any pattern of scenarios such as for migration to a different tech stack (Php to Java), or to different library, or for up-gradation of OS etc.?
3. What are the steps of this library comparison and selection process
4. How much time is taken in each step
5. How the search (for available libraries) is performed internally and externally (Google/Bing or Q&A site specific search)
6. What external websites is most helpful for API comparison?
7. What type of opinions are most helpful for API selection
8. What are the factors and weights of the factors during API comparison?
9. Do you think there is any different kinds of factors for machine learning?
10. Who influences the selection process?
11. Who takes the final decision?
12. What environmental (organizational/industry etc.) factors impact API selection
13. What individual characteristics affect API selection

At the end of the discussion, we would like to demonstrate a prototype of a comparison tool that we are envisioning to build and would highly appreciate your suggestion from a practitioners' perspective.

We cordially thank you for accepting our invitation and supporting us in this impactful research.

Here is the [link to interview consent form](#) to be signed by you that was approved by Research Ethics Board of the <<university>>. Please fill up the form with your information and consent and reply back.

Regards,

12. Invitation to P12

As part of a research we are doing at the <<university>>, we are trying to explore how developers compare between multiple competing third party libraries. We believe that with your remarkable experience, we could get valuable insight in this API comparison process.

To this end, we would like to invite you for a semi-structured interview.

Here is the basic information of the interview:

- Meeting Tool: Microsoft Teams
- Duration: approximately 45~60 minutes
- Discussion Language: English
- Recording: Audio ON, Video preferred

(Recording with MS Teams is needed for us for automated transcription which saves us a lot of manual work.)

The nature of the interview is exploratory and open-ended where we would follow the discussion path as you respond.

At the beginning of the discussion, we would like to know about you and your organizations (where you had to choose a library):

- Your primary role
- Your primary application domain
- Size of your company (total headcount, engineering headcount)
- Primary domain/industry of your organization

To facilitate the main discussion, we have few questions in mind just to help us navigate:

1. Can you tell us few libraries that you had to compare in your career?
2. When you had to select the libraries, did you have any pattern of scenarios such as for migration to a different tech stack (Php to Java), or to different library, or for up-gradation of OS etc.?
3. What are the steps of this library comparison and selection process
4. How much time is taken in each step
5. How the search (for available libraries) is performed internally and externally (Google/Bing or Q&A site specific search)
6. What external websites is most helpful for API comparison?
7. What type of opinions are most helpful for API selection
8. What are the factors and weights of the factors during API comparison?
9. Who influences the selection process?
10. What environmental (organizational/industry etc.) factors impact API selection
11. What individual characteristics affect API selection
12. Have you ever performed as a gatekeeper in this API integration process that you finally check the license or security issues before or during it runs in production? What is your experience there?

At the end of the discussion, we would like to demonstrate a prototype of a comparison tool that we are envisioning to build and would highly appreciate your suggestion from a practitioners' perspective.

We cordially thank you for accepting our invitation and supporting us in this impactful research.

Here is the [link to interview consent form](#) (link will be expired in 7 days) to be signed by you that was approved by Research Ethics Board of the <<university>>. Please fill up the form with your information and consent and reply back.

Regards,

13. Invitation to P13

As part of a research we are doing at the <<university>>, we are trying to explore how developers compare between multiple competing third party libraries. We believe that with your remarkable experience, we could get valuable insight in this API comparison process.

To this end, we would like to invite you for a semi-structured interview.

Here is the basic information of the interview:

- Meeting Tool: Microsoft Teams
- Duration: approximately 45~60 minutes
- Discussion Language: English
- Recording: Audio ON, Video preferred

(Recording with MS Teams is needed for us for automated transcription which saves us a lot of manual work.)

The nature of the interview is exploratory and open-ended where we would follow the discussion path as you respond.

At the beginning of the discussion, we would like to know about you and your organizations (where you had to choose a library):

- Your primary role
- Your primary application domain
- Size of your company (total headcount, engineering headcount)
- Primary domain/industry of your organization

To facilitate the main discussion, we have few questions in mind just to help us navigate:

1. Can you tell us few libraries that you had to compare in your career?
2. When you had to select the libraries, did you have any pattern of scenarios such as for migration to a different tech stack (Php to Java), or to different library, or for up-gradation of OS etc.?
3. What are the steps of this library comparison and selection process
4. How much time is taken in each step

5. How the search (for available libraries) is performed internally and externally (Google/Bing or Q&A site specific search)
6. What external websites is most helpful for API comparison?
7. What type of opinions are most helpful for API selection
8. What are the factors and weights of the factors during API comparison?
9. Who influences the selection process?
10. What environmental (organizational/industry etc.) factors impact API selection
11. What individual characteristics affect API selection
12. Have you ever performed as a gatekeeper in this API integration process that you finally check the license, security, or other issues before or during it runs in production? What is your experience there?
13. **Have you or your team ever released/open-sourced a library that can be used by other developers?**

At the end of the discussion, we would like to demonstrate a prototype of a comparison tool that we are envisioning to build and would highly appreciate your suggestion from a practitioners' perspective.

We cordially thank you for accepting our invitation and supporting us in this impactful research.

Here is the [link to interview consent form](#) (link will be expired in 7 days) to be signed by you that was approved by Research Ethics Board of the <<university>>. Please fill up the form with your information and consent and reply back.

Regards,

14. Invitation to P14

As part of a research we are doing at the <<university>>, we are trying to explore how developers compare between multiple competing third party libraries. We believe that with your development experience, we could get valuable insight in this API comparison process.

To this end, we would like to invite you for a semi-structured interview.

Here is the basic information of the interview:

- Meeting Tool: Microsoft Teams
- Duration: approximately 45~60 minutes
- Discussion Language: English
- Recording: Audio ON, Video preferred

(Recording with MS Teams is needed for us for automated transcription which saves us a lot of manual work.)

The nature of the interview is exploratory and open-ended where we would follow the discussion path as you respond.

At the beginning of the discussion, we would like to know about you and your organizations (where you had to choose a library):

- Your primary role
- Your primary application domain
- Size of your company (total headcount, engineering headcount)
- Primary domain/industry of your organization

To facilitate the main discussion, we have few questions in mind just to help us navigate:

1. Can you tell us few libraries that you had to compare in your career?
2. What are the steps of this library comparison and selection process?
3. How the search (for available libraries) is performed internally and externally (Google/Bing or Q&A site specific search)?
4. What external websites is most helpful for API comparison?
5. What are the factors and weights of the factors during API comparison?
6. Who influences the selection process?
7. What environmental (organizational/industry etc.) factors impact API selection?
8. Do you think whether your own personal traits can impact the library selection process or it is always objectively compared?
9. **When you had to select the libraries, did you have any pattern of scenarios such as for migration to a different tech stack (Php to Java), or to different library, or for up-gradation of OS etc.?**

10. How do you think the OS version and library versions impact the selection process/criteria, particularly for mobile applications?

At the end of the discussion, we would like to demonstrate a prototype of a comparison tool that we are envisioning to build and would highly appreciate your suggestion from a practitioners' perspective.

We cordially thank you for accepting our invitation and supporting us in this research.

Here is the link ([3.0 Library-Comparison-Consent-Form-Farzia.docx](#)) to interview consent form (link will be expired in 7 days) that was approved by Research Ethics Board of the <<university>>. Please fill up the form with your information and consent and reply back.

Regards,

15. Invitation to P15

As part of a research we are doing at the <<university>>, we are trying to explore how developers compare between multiple competing third party libraries. We believe that with your versatile development experience, we could get valuable insight in this API comparison process.

To this end, we would like to invite you for a semi-structured interview.

Here is the basic information of the interview:

- Meeting Tool: Microsoft Teams
- Duration: approximately 45~60 minutes
- Discussion Language: English
- Recording: Audio ON, Video preferred

(Recording with MS Teams is needed for us for automated transcription which saves us a lot of manual work.)

The nature of the interview is exploratory and open-ended where we would follow the discussion path as you respond.

At the beginning of the discussion, we would like to know about you and your organizations (where you had to choose a library):

- Your primary role
- Your primary application domain
- Size of your company (total headcount, engineering headcount)
- Primary domain/industry of your organization

To facilitate the main discussion, we have few questions in mind just to help us navigate:

1. Can you tell us few libraries that you had to compare in your career?
2. What are the steps of this library comparison and selection process?
3. How the search (for available libraries) is performed internally and externally (Google/Bing or Q&A site specific search)?
4. What external websites is most helpful for API comparison?
5. What are the factors and weights of the factors during API comparison?
6. Who influences the selection process?
7. What environmental (organizational/industry etc.) factors impact API selection?
8. Do you think whether your own personal traits can impact the library selection process or it is always objectively compared?
9. **How the third party library ecosystem works in stable tech stacks such as .Net compared to Java or Python?**
10. **Do you think any analysis or comparison tool can help developers making appropriate decisions?**
11. **What organizational policy can be set for third party libraries?**
12. **How we can develop a tool that will be useful for the developers and organizations?**

At the end of the discussion, we would like to demonstrate a prototype of a comparison tool that we are envisioning to build and would highly appreciate your suggestion from a practitioners' perspective.

We cordially thank you for accepting our invitation and supporting us in this research.

Here is the link ([3.0 Library-Comparison-Consent-Form-Topu-Bhai.docx](#)) to interview consent form (link will be expired in 7 days) that was approved by Research Ethics Board of the <<university>>. Please fill up the form with your information and consent and reply back.

Regards,

16. Invitation to P16

As part of a research we are doing at the <<university>>, we are trying to explore how developers compare between multiple competing third party libraries. We believe that with your development experience, we could get valuable insight in this API comparison process.

To this end, we would like to invite you for a semi-structured interview.

Here is the basic information of the interview:

- Meeting Tool: Microsoft Teams
- Duration: approximately 45~60 minutes
- Discussion Language: English
- Recording: Audio ON, Video preferred

(Recording with MS Teams is needed for us for automated transcription which saves us a lot of manual work.)

The nature of the interview is exploratory and open-ended where we would follow the discussion path as you respond.

At the beginning of the discussion, we would like to know about you and your organizations (where you had to choose a library):

- Your primary role
- Your primary application domain
- Size of your company (total headcount, engineering headcount)
- Primary domain/industry of your organization

To facilitate the main discussion, we have few questions in mind just to help us navigate:

1. Can you tell us few libraries that you had to compare in your career?
2. What are the steps of this library comparison and selection process?
3. How the search (for available libraries) is performed internally and externally?
4. What external websites is most helpful for library comparison?
5. What are the factors and weights of the factors during the comparison?
6. Who influences the selection process?
7. What environmental (organizational/industry etc.) factors impact libraryselection?
8. Do you think whether your own personal traits can impact the libraryselection process or it is always objectively compared?
9. **Have you ever performed as a gatekeeper in this libraryintegration process that you finally check the license or security issues before or during it runs in production? What is your experience there?**
10. **Since you primarily work in cyber security domain, do you think there is any special concern or consideration for external libraries?**
11. **Are you aware of any security tool that can check librarylicense or monitor vulnerabilities continuously?**

At the end of the discussion, we would like to demonstrate a prototype of a comparison tool that we are envisioning to build and would highly appreciate your suggestion from a practitioners' perspective.

We cordially thank you for accepting our invitation and supporting us in this research.

Here is the link ([3.0 Library-Comparison-Consent-Form-Mahdi.docx](#)) to interview consent form (link will be expired in 7 days) that was approved by Research

Ethics Board of the <<university>>. Please fill up the form with your information, and consent and reply back the PDF version.

Regards,

17. Invitation to P17

As part of a research we are doing at the <<university>>, we are trying to explore how developers compare between multiple competing third party libraries. We believe that with your development experience, we could get valuable insight in this library adoption process.

To this end, we would like to invite you for a semi-structured interview.

Here is the basic information of the interview:

- Meeting Tool: Microsoft Teams
- Duration: approximately 45~60 minutes
- Discussion Language: English
- Recording: Audio ON, Video preferred

(Recording with MS Teams is needed for us for automated transcription which saves us a lot of manual work.)

The nature of the interview is exploratory and open-ended where we would follow the discussion path as you respond.

At the beginning of the discussion, we would like to know about you and your organizations (where you had to choose a library):

- Your primary role
- Your primary application domain
- Size of your company (total headcount, engineering headcount)
- Primary domain/industry of your organization

To facilitate the main discussion, we have few questions in mind just to help us navigate:

1. Can you tell us few libraries that you had to compare in your career?
2. What are the steps of this library comparison and selection process?
3. How the search (for available libraries) is performed internally and externally?
4. What external websites is most helpful for library comparison?
5. What are the factors and weights of the factors during the comparison?
6. Who influences the selection process?
7. What environmental (organizational/industry etc.) factors impact libraryselection?
8. Do you think whether your own personal traits can impact the libraryselection process or it is always objectively compared?
9. **Have you ever performed as a gatekeeper in this libraryintegration process that you finally check the license or security issues before or during it runs in production? What is your experience there?**
10. **Do you use any kind of verification tool that can check external library license or monitor vulnerabilities continuously?**

At the end of the discussion, we would like to demonstrate a prototype of a comparison tool that we are envisioning to build and would highly appreciate your suggestion from a practitioners' perspective.

We cordially thank you for accepting our invitation and supporting us in this research.

Here is the link ([3.0 Library-Comparison-Consent-Form-Tobias.docx](#)) to interview consent form (link will be expired in 7 days) that was approved by Research Ethics Board of the <<university>>. Please fill up the form with your information, and consent and reply back the PDF version.

Regards,

18. Invitation to P18

As part of a research we are doing at the <<university>>, we are trying to explore how developers compare between multiple third party libraries. We believe that with your development experience, we could get valuable insight in this library adoption process.

To this end, we would like to invite you for a semi-structured interview.

Here is the basic information of the interview:

- Meeting Tool: Microsoft Teams
- Duration: approximately 45~60 minutes
- Discussion Language: English
- Recording: Audio ON, Video preferred

(Recording with MS Teams is needed for us for automated transcription which saves us a lot of manual work.)

The nature of the interview is exploratory and open-ended where we would follow the discussion path as you respond.

At the beginning of the discussion, we would like to know about you and your organizations (where you had to choose a library):

- Your primary role
- Your primary application domain
- Size of your company (total headcount, engineering headcount)
- Primary domain/industry of your organization

To facilitate the main discussion, we have few questions in mind just to help us navigate:

1. Can you tell us few libraries that you had to compare in your career?
2. What are the steps of this library comparison and selection process?
3. How the search (for available libraries) is performed internally and externally?
4. What external websites is most helpful for library comparison?
5. What are the factors and weights/priorities of the factors during the comparison?
6. Who influences the selection process?
7. What environmental (organizational/industry etc.) factors impact library selection?

8. **When you develop in C++, how often do you use external libraries? Is it a common practice to use libraries?**
9. **If you have used any libraries, are they often open source or do you use only linked or dynamic libraries without access to the code?**
10. **In a long term product, do you have any special consideration for the libraries and how do you ensure that libraries satisfy such requirements?**

At the end of the discussion, we would like to demonstrate a prototype of a comparison tool that we are envisioning to build and would highly appreciate your suggestion from a practitioners' perspective.

We cordially thank you for accepting our invitation and supporting us in this research.

Here is the link ([3.0 Library-Comparison-Consent-Form-Ellis.docx](#)) to interview consent form (link will be expired in 7 days) that was approved by Research Ethics Board of the <<university>>. Please fill up the form with your information, and consent and reply back the PDF version.

Regards,

19. Invitation to P19

As part of a research we are doing at the <<university>>, we are trying to explore how developers compare between multiple competing third party libraries. We believe that with your development experience, we could get valuable insight in this library adoption process.

To this end, we would like to invite you for a semi-structured interview.

Here is the basic information of the interview:

- Meeting Tool: Microsoft Teams
- Duration: approximately 60 minutes
- Discussion Language: English

- Recording: Audio ON, Video preferred

(Recording with MS Teams is needed for us for automated transcription which saves us a lot of manual work.)

The nature of the interview is exploratory and open-ended where we would follow the discussion path as you respond.

At the beginning of the discussion, we would like to know about you and your organizations (where you had to choose a library):

- Your primary role
- Your primary application domain
- Size of your company (total headcount, engineering headcount)
- Primary domain/industry of your organization

To facilitate the main discussion, we have few questions in mind just to help us navigate:

1. Can you tell us few libraries that you had to compare in your career?
2. What are the steps of this library comparison and selection process?
3. How the search (for available libraries) is performed internally and externally?
4. What external websites is most helpful for library comparison?
5. What are the factors you consider during the comparison?
6. Who influences the selection process?
7. What environmental (organizational/industry etc.) factors impact library selection?
8. Do you think whether your own personal traits can impact the library selection process or it is always objectively compared?
9. **Do you see any difference between large companies and start-ups in their library selection process?**
10. **Do you have any experience of open sourcing any library? Or does your company maintain any open source library?**

At the end of the discussion, we would like to demonstrate a prototype of a comparison tool that we are envisioning to build and would highly appreciate your suggestion from a practitioners' perspective.

We cordially thank you for accepting our invitation and supporting us in this research.

Here is the link ([3.0 Library-Comparison-Consent-Form-Sohan.docx](#)) to interview consent form (link will be expired in 7 days) that was approved by Research Ethics Board of the <<university>>. Please fill up the form with your information, and consent and reply back the PDF version.

Regards,

20. Invitation to P20

As part of a research we are doing at the <<university>>, we are trying to explore how developers compare between multiple competing third party libraries. We believe that with your development experience, we could get valuable insight in this library adoption process.

To this end, we would like to invite you for a semi-structured interview.

Here is the basic information of the interview:

- Meeting Tool: Microsoft Teams
- Duration: approximately 60 minutes
- Discussion Language: English
- Recording: Audio ON, Video preferred

(Recording with MS Teams is needed for us for automated transcription which saves us a lot of manual work.)

The nature of the interview is exploratory and open-ended where we would follow the discussion path as you respond.

At the beginning of the discussion, we would like to know about you and your organizations (where you had to choose a library):

- Your primary role

- Your primary application domain
- Size of your company (total headcount, engineering headcount)
- Primary domain/industry of your organization

To facilitate the main discussion, we have few questions in mind just to help us navigate:

1. Can you tell us few libraries that you had to compare in your career?
2. What are the steps of this library comparison and selection process?
3. How the search (for available libraries) is performed internally and externally?
4. What external websites is most helpful for library comparison?
5. What are the factors you consider during the comparison?
6. Who influences the selection process?
7. What environmental (organizational/industry etc.) factors impact library selection?
8. Do you think whether your own personal traits can impact the library selection process or it is always objectively compared?
9. **How frequently you upgrade versions in mobile applications? Does it vary between platforms (between Android and iOS)**
10. **Do you face any problems in maintaining libraries in mobile applications? What are those?**

At the end of the discussion, we would like to demonstrate a prototype of a comparison tool that we are envisioning to build and would highly appreciate your suggestion from a practitioners' perspective.

We cordially thank you for accepting our invitation and supporting us in this research.

Here is the link ([3.0 Library-Comparison-Consent-Form-Kiran.docx](#)) to interview consent form (link will be expired in 7 days) that was approved by Research Ethics Board of the <<university>>. Please fill up the form with your information, and consent and reply back the PDF version.

Regards,

21. Invitation to P21

As part of a research we are doing at the <<university>>, we are trying to explore how developers compare between multiple competing third party libraries. We believe that with your development experience, we could get valuable insight in this library adoption process.

To this end, we would like to invite you for a semi-structured interview.

Here is the basic information of the interview:

- Meeting Tool: Microsoft Teams
- Duration: approximately 60 minutes
- Discussion Language: English
- Recording: Audio ON, Video preferred

(Recording with MS Teams is needed for us for automated transcription which saves us a lot of manual work.)

The nature of the interview is exploratory and open-ended where we would follow the discussion path as you respond.

At the beginning of the discussion, we would like to know about you and your organizations (where you had to choose a library):

- Your primary role
- Your primary application domain
- Size of your company (total headcount, engineering headcount)
- Primary domain/industry of your organization

To facilitate the main discussion, we have few questions in mind just to help us navigate:

1. Can you tell us few libraries that you had to compare in your career?
2. What are the steps of this library comparison and selection process?
3. How the search (for available libraries) is performed internally and externally?
4. What are the factors you consider during the comparison?
5. Who influences the selection process?
6. What environmental (organizational/industry etc.) factors impact library selection?

7. Do you think whether your own personal traits can impact the library selection process or it is always objectively compared?
8. How do you ensure that your current library needs any version upgradation?
9. Have you faced any situation where you could not update the library or you had to migrate to another library?
10. **Do you see any difference in library selection/maintenance in open-core companies where the main product is open source?**
11. **Do you have any experience of open sourcing any library? Or does your company maintain any open source library?**

At the end of the discussion, we would like to demonstrate a prototype of a comparison tool that we are envisioning to build and would highly appreciate your suggestion from a practitioners' perspective.

We cordially thank you for accepting our invitation and supporting us in this research.

Here is the link ([3.0 Library-Comparison-Consent-Form-Subashis.docx](#)) to interview consent form (link will be expired in 7 days) that was approved by Research Ethics Board of the <<university>>. Please fill up the form with your information, and consent and reply back the PDF version.

Regards,

22. Invitation to P2

As part of a research we are doing at the <<university>>, we are trying to explore how developers compare among multiple competing third party libraries. We believe that with your development experience, we could get valuable insight in this library adoption process.

To this end, we would like to invite you for a semi-structured interview.

So far we have got some idea on the library selection criteria, selection process, and library maintenance life cycle. We observed a wide range of selection criteria (e.g., some team chooses a library they are familiar with while some team chooses a library which is customizable and may not be easy to install). We are trying to come up with some guiding principles which can explain this difference in selection criteria and process across the teams. In this interview, we would like to get your insight on these principles. For your convenience, I am sharing the 13 principles we identified:

- 1) Make Life Easy - Just Solve It
- 2) Meet Deadline
- 3) Don't Reinvent the Wheel
- 4) Use Stable Time Tested Component
- 5) Use Common Development Tool
- 6) Prefer over Framework
- 7) Ensure Continuity
- 8) Maintain Continuously
- 9) Confirm Stability
- 10) Enforce Security
- 11) Avoid Legal Risks
- 12) Avoid Structural Change
- 13) Prefer Native Support

In the discussion, we will try to hear your opinion about these principles and in case you could add some more, that would be great for our research.

Here is some basic information of the interview:

- Meeting Tool: Microsoft Teams
- Duration: approximately 60 minutes
- Discussion Language: English
- Recording: Audio ON, Video preferred

Here is the link ([3.0 Library-Comparison-Consent-Form-Shelly.docx](#)) to interview consent form (link will be expired in 7 days) that was approved by Research Ethics Board of the <<university>>. Please fill up the form with your information, and consent and reply back the PDF version.

We cordially thank you for accepting our invitation and supporting us in this research.

Regards,

23. Invitation to P2

As part of a research we are doing at the <<university>>, we are trying to explore how developers compare between multiple competing third party libraries. We believe that with your development experience, we could get valuable insight in this library adoption process.

To this end, we would like to invite you for a semi-structured interview.

Here is the basic information of the interview:

- Meeting Tool: Microsoft Teams
- Duration: approximately 60 minutes
- Discussion Language: English
- Recording: Audio ON, Video preferred

(Recording with MS Teams is needed for us for automated transcription which saves us a lot of manual work.)

The nature of the interview is exploratory and open-ended where we would follow the discussion path as you respond.

At the beginning of the discussion, we would like to know about you and your organizations (where you had to choose a library):

- Your primary role
- Your primary application domain
- Size of your company (total headcount, engineering headcount)
- Primary domain/industry of your organization

To facilitate the main discussion, we have few questions in mind just to help us navigate:

1. Can you tell us few libraries that you had to compare in your career?
2. What are the steps of this library comparison and selection process?
3. How the search (for available libraries) is performed internally and externally?
4. What external websites is most helpful for library comparison?
5. What are the factors you consider during the comparison?
6. Who influences the selection process?
7. What environmental (organizational/industry etc.) factors impact library selection?
8. Do you think whether your own personal traits can impact the library selection process or it is always objectively compared?
9. **How common it is to use third party libraries in machine learning and why?**
10. **When you include third party libraries, do you have any concern in mind for future maintenance?**

At the end of the discussion, we would like to demonstrate a prototype of a comparison tool that we are envisioning to build and would highly appreciate your suggestion from a practitioners' perspective.

We cordially thank you for accepting our invitation and supporting us in this research.

Here is the link ([3.0 Library-Comparison-Consent-Form-Alexandre.docx](#)) to interview consent form (link will be expired in 7 days) that was approved by Research Ethics Board of the <<university>>. Please fill up the form with your information, and consent and reply back the PDF version.

Regards,

24. Invitation to P2

This is <<name>>. I am doing masters in software engineering in the <<university>>. Dr. Shantanu Banik recommended you as a resource person for one of my research projects.

As part of the research, we are trying to explore how developers compare between multiple competing third party libraries. We believe that with your development experience, we could get valuable insight in this library adoption process, especially in health sector using machine learning technologies. To this end, we would like to invite you for a semi-structured interview.

Here is the basic information of the interview:

- Meeting Tool: Microsoft Teams
- Duration: approximately 60 minutes
- Discussion Language: English
- Recording: Audio ON, Video preferred

(Recording with MS Teams is needed for us for automated transcription which saves us a lot of manual work.)

The nature of the interview is exploratory and open-ended where we would follow the discussion path as you respond.

At the beginning of the discussion, we would like to know about you and your organizations (where you had to choose a library):

- Your primary role
- Your primary application domain
- Size of your company (total headcount, engineering headcount)
- Primary domain/industry of your organization

To facilitate the main discussion, we have few questions in mind just to help us navigate:

1. Can you tell us few libraries that you had to compare in your career?
2. What are the steps of this library comparison and selection process?
3. How the search (for available libraries) is performed internally and externally?
4. What external websites is most helpful for library comparison?
5. What are the factors you consider during the comparison?
6. Who influences the selection process?
7. What environmental (organizational/industry etc.) factors impact library selection?
8. Do you think whether your own personal traits can impact the library selection process or it is always objectively compared?

9. **How common it is to use third party libraries in machine learning and why?**
10. **When you include third party libraries, do you have any concern in mind for future maintenance?**
11. **What kind of privacy concerns you needs to take in health industry for using third party libraries and user data? Is there any specific compliance issue?**

At the end of the discussion, we would like to demonstrate a prototype of a comparison tool that we are envisioning to build and would highly appreciate your suggestion from a practitioners' perspective.

We cordially thank you for accepting our invitation and supporting us in this research.

Here is the link ([3.0 Library-Comparison-Consent-Form-Dr.Rotem.docx](#)) to interview consent form (link will be expired in 7 days) that was approved by Research Ethics Board of the <<university>>. Please fill up the form with your information, and consent and reply back the PDF version.

Regards,

25. Invitation to P2

26. Invitation to P2

27. Invitation to P2