Fair Technical Assessment/Technical Interview Framework

Autor: Manuela Cortés Granados

Date: 14 February 2025 -5:00 GMT Bogotá D.C. Colombia

Updates: 29 April 2025 2.2.6 and 2.2.7

Introduction: Recognizing Human Dignity in Technical Assessments

Technical assessments/Technical Interviews are not merely tests of skill; they are a gateway to opportunity, physical survival in this world, and professional growth. Every candidate who undergoes these evaluations has invested years and money, often decades, with great expectations of a happy and prosperous future for him or herself, his/her family, his/her partner, his/her children and his/her acquaintances. of doing quite hard work of studying, mastering their craft, and contributing to the industry. Their expertise is not just a collection of theoretical knowledge but the result of real-world experience, providing concrete deliverables that has already provided added value for companies, small or large, dedication, and perseverance.

Beyond mastering concepts, these professionals have contributed to real-world solutions that have generated significant value for companies—driving revenue, optimizing operations, and enabling stakeholders, employees, and customers to benefit from their work. Their impact is not measured or has not been the concrete result of doing work from strict memorization of complex algorithms with not any tool or resource, but by their ability to solve practical challenges using the resources available in modern development environments.

Like any skilled professional, software engineers/developers/data scientist/data engineers/QA Automation testers/tech leaders that do programming, in real world companies and in real world scenarios, rely on tools such as search engines, official documentation, coding platforms, IDEs, Al-powered assistants, and collaborative repositories to enhance productivity and deliver high-quality solutions. They have already provided large and medium-scaled solutions with the help of these elements and/or were able to do so because of their critical thinking as humans, and how, based on their own human values, good faith and correct attitude, assume the challenge of doing the work or challenge, and what is that makes a Human Intelligence different from AI, and that is why companies seek to hire human software engineers/human professionals instead of relying on AI to solve a concrete problem, and that is the concrete key factor that should be strictly be evaluated from the candidate. Expecting candidates to solve problems, by memory and in complete isolation, without access to these essential resources, does not reflect real-world software development. A fair assessment should acknowledge this reality and evaluate candidates on their true ability to build, troubleshoot, and innovate—not on artificial unrealistic constraints that disregard how technology professionals actually work.

A fair assessment framework must recognize this human element, for all man y woman equally, with no discrimination by their English accent/national origin/sexual orientation/gender orientation/religion. Candidates are not just test-takers—they are professionals seeking employment to support themselves and their families. The evaluation process should respect their dignity by ensuring fairness, transparency, and objectivity.

A flawed or biased assessment can unfairly deprive a skilled professional of an opportunity, undermining years—even decades—of hard work. The psychological damage caused by such unjust treatment can be profound, leading to feelings of humiliation, frustration, and self-doubt. Beyond personal harm, these experiences can foster resentment, distrust, and a negative perception of the hiring company, its employees, and even entire industries or social groups. When candidates perceive discrimination—whether based on national origin, gender, race, or other biases—it can fuel societal divisions, increasing hostility and perpetuating systemic inequalities.

Therefore, it is crucial that technical interviews and assessments uphold ethical standards, avoid dehumanizing or subjective scrutiny based on personal feelings and impressions, and focus on evaluating true competencies without unjust practices. Companies must recognize that hiring is not just about selecting the "best" candidate but about fostering a fair, respectful, and inclusive process that values the dignity, contributions, and potential of every professional.

The importance of fairness, integrity, and recognizing a person's contributions is emphasized in the moral and ethical teachings of the world's major religions:

Ethical Principles from Major Religions on Justice and Fairness in Assessments

Christianity /†/

Gospel according to St. John 7:24 - "Stop judging by mere appearances, but instead judge correctly." \rightarrow True merit is demonstrated through good works, just as technical assessments should recognize real-world contributions.

Proverbs 11:1 – "The Lord detests dishonest scales, but accurate weights find favor with him." → Fair and objective assessments align with divine justice.

Islam 🕼

Quran 16:90 – "Indeed, Allah commands justice, good conduct, and giving to relatives and forbids immorality, bad conduct, and oppression."

→ Justice and fairness are moral imperatives, ensuring assessments are ethical and unbiased.

Quran 49:13 − "Indeed, the most noble of you in the sight of Allah is the most righteous of you." → True worth is based on righteousness and competence, not external attributes.

Judaism 🖈

Deuteronomy 16:20 – "Follow justice and justice alone, so that you may live and possess the land the Lord your God is giving you."

→ Justice is a divine commandment, reinforcing the need for fair evaluations.

Proverbs 21:3 − "To do righteousness and justice is more acceptable to the Lord than sacrifice." → Ethical behavior, such as fair hiring processes, is more valuable than flawed traditions.

Hinduism 🔊

Bhagavad Gita 2:47 – "You have a right to perform your prescribed duties, but you are not entitled to the fruits of your

→ Efforts and contributions matter more than arbitrary rewards, aligning with skill-based assessments.

Rig Veda 10.191.2 — "Let us act together in harmony and strive for justice and fairness." → Harmony and fairness are essential in all societal systems, including hiring.

Buddhism 🕸

Dhammapada 256 – "A person is not wise because they speak much. The one who is peaceful, without hate, fearless, and just is truly wise."

→ Wisdom should be judged by competence and ethical behavior, not memorization of trivia.

Sigalovada Sutta — "A leader must be impartial, unbiased, and fair to all." → Interviewers must ensure fair assessments without personal biases.

Sikhism 🚳

Guru Granth Sahib, Ang 1245 — "He alone is a devotee who practices the truth." → True skill and merit come from honest contributions, just as assessments should reflect real-world impact.

Taoism 🕖

Tao Te Ching, Chapter 81 – "The wise do not accumulate for themselves; the more they give to others, the more they possess."

→ Knowledge gains value when applied and shared, reinforcing the importance of recognizing past contributions.

Zoroastrianism 💪

Yasna 34.1 — "May we be among those who make this world progress towards perfection." → Actions that benefit society are the true measure of success.

Confucianism 🗏

Analects 15:23 — "The noble person is concerned with virtue, the inferior person is concerned with recognition." → Assessments should value integrity and skill over artificial reputation.

Shinto

Kojiki – "A righteous heart leads to a harmonious world." → Justice and ethical practices in hiring create a better society.

This framework is built on the fundamental principle that technical assessments should be conducted with fairness, respect, and a deep understanding of the candidate's professional journey.

1. Purpose & Objectives

Article 1.1: This framework ensures fairness, objectivity, and transparency in technical assessments/technical interviews.

Article 1.2: It eliminates biases, unfair judgments, and subjectivity by establishing clear, measurable, and justifiable criteria

Article 1.3: The document also addresses intrusive monitoring practices and unjustified disqualifications based on personal assumptions.

2. Core Principles of Fair Assessments

2.1 Objective Criteria

- Article 2.1.1: Assessments must be based on predefined, measurable, and skill-based criteria.
- **Article 2.1.2:** Evaluations should measure problem-solving ability, technical proficiency, and logical thinking, rather than arbitrary factors.
- **Article 2.1.3:** The focus must align with real-world development practices, recognizing that most coding is done with reference materials.
- **Article 2.1.4:** Candidates should be allowed to use tools they rely on, such as AI tools, Google, and GitHub repositories, to reflect realistic work environments.

2.2 Transparency

- **Article 2.2.1**: All candidates must receive the assessment criteria before the test begins. The criteria must be provided in a document of no more than one page, containing specific topics from which questions and answers can be generated for study purposes. The total number of questions should not exceed 500. This document must be sent at least one week in advance to allow candidates to prepare adequately on very specific topics.
- **Article 2.2.2**: The scoring methodology, including weightage for different aspects like correctness, efficiency, and maintainability, should be shared. Additionally, each question must have an assigned score, clearly specifying how much each one contributes to the final evaluation. The assessment should be graded in real-time as the candidate progresses through the test, allowing them to track their performance immediately.
- **Article 2.2.3**: Evaluators must provide feedback with justifications for any deductions.
- **Article 2.2.4**: Each question must be scored immediately after it is answered (on a scale from 1 to 10) and documented for the technical recruiter. Both the technical interviewer and the candidate must carry on this process at the time of technical assessment/interview.
- Article 2.2.5: Evaluators should also self-assess their grading to ensure objectivity.

Article 2.2.6: Interview Report Transparency

2.2.6.1. Purpose:

To promote fairness, accountability, and transparency in technical interviews and assessments.

2.2.6.2. Policy:

After each technical interview or assessment, the evaluator must prepare a comprehensive interview report. This report must include:

2.2.6.2.1. Full List of Questions Asked:

A clear and complete record of all technical, behavioral, or situational questions posed to the candidate during the session.

2.2.6.2.2. Candidate's Responses:

A written summary or transcript (where applicable) of the answers given by the candidate, including code snippets, system design sketches, or verbal explanations.

2.2.6.2.3. Evaluation Notes (Optional for Candidate):

Internal evaluator comments can be included for HR purposes but should be shared with the candidate only if phrased constructively and respectfully.

2.2.6.2.4. HR Transmission:

HR is responsible for sending this report to the candidate at the time of delivering feedback—regardless of the outcome (selected or not selected). This ensures candidates have full visibility into how their performance was assessed.

2.2.6.2.5. Rationale:

This process reinforces trust in the hiring process, empowers candidates with clarity on their evaluation, and protects the company from claims of bias or unprofessionalism.

Article 2.2.7: Candidate Right to Use Personal AI Notes or Record Session

2.2.7.1. Purpose:

To ensure candidates have fair and equal opportunity to demonstrate their capabilities and retain access to their thought process and responses.

2.2.7.2. Policy:

2.2.7.2.1. Use of Personal Al Notes or Tools:

Candidates are allowed to use their own Al-powered notes or personal digital assistants (e.g., note-taking apps, summarization tools, context-aware memory tools) during the interview, as long as:

- The tools are managed by the candidate.
- The tools do not involve real-time external assistance (e.g., live chat with LLMs or human tutors).
- Usage is disclosed at the beginning of the session if required by company policy.

2.2.7.2.2. Right to Record Interview Session:

Candidates may request permission to record the session (audio or video) or take comprehensive written notes for their own review. This promotes:

- Personal reflection and self-improvement.
- Transparency in the assessment process.
- A record in case of disputes or appeal.

2.2.7.2.3. Evaluator Obligation:

Evaluators must not obstruct reasonable efforts by candidates to document the session, unless restricted by company security policies (which must be declared in advance).

2.2.7.2.4. Rationale:

Enabling candidates to document their interview experience—through AI tools or recordings—supports transparency, self-improvement, and equal access, especially for neurodiverse individuals or non-native speakers who may benefit from reviewing complex exchanges.

2.3 Consistency

Article 2.3.1: Every candidate should be assessed under the same conditions.

Article 2.3.2: The same problems, scoring criteria, and time limits should apply to all applicants at the same level.

2.4 No Bias or Unjust Practices

Article 2.4.1 Evaluators must avoid biases related to nationality, gender, background, or behavior.

Article 2.4.2 Al-assisted tool usage should not be assumed without direct and verifiable evidence.

Article 2.4.3 No candidate should be unfairly accused of misconduct without objective proof.

3. Assessment Design Guidelines

3.1 Defining Skill Requirements

Article 3.1.1. Clearly outline the skills being tested, such as:

Algorithms and data structures System design Database management Cloud computing Programming language proficiency

3.2 Avoiding Trick Questions

Article 3.2.1 Assessments should reflect real-world tasks and avoid impractical questions.

Article 3.2.2 Questions should allow candidates to demonstrate practical knowledge.

Article 3.2.3 Theoretical questions should be disclosed in advance, as the volume of potential topics is vast and unrealistic to memorize.

3.3 Balanced Difficulty Levels

Article 3.3.1 Provide a mix of easy, moderate, and hard questions to evaluate all skill levels fairly.

Article 3.3.2 Ensure time constraints are reasonable and aligned with task complexity.

Article 3.3.3 Allow the use of documentation and reasonable online resources to reflect industry practices.

4. Evaluation Criteria

4.1 Objective Scoring Rubric

Article 4.1.1 Code correctness: 40%

Article 4.1.2 Efficiency and performance: 20%

Article 4.1.3 Code readability and maintainability: 20%

Article 4.1.4 Problem-solving approach: 20%

Article 4.2 Automated Grading for Objectivity

Article 4.2.1 Utilize automated grading systems where possible to eliminate bias.

Article 4.2.2 If manual grading is required, it must follow predefined rubrics with documented justifications for deductions.

4.3 Justification for Deductions

Article 4.3.1 Evaluators must provide clear explanations for score deductions.

Article 4.3.2 Vague feedback like "solution is not optimal" is insufficient; specific reasoning must be given.

Article 4.3.3 Disqualifying a candidate for missing a few advanced questions while correctly answering fundamental ones is unfair.

5. Evaluator Responsibilities

- **Article 5.1** Evaluators must be trained on objective assessment methodologies.
- Article 5.2 They must provide constructive, actionable feedback.
- Article 5.3 They must not alter evaluation criteria mid-assessment.
- **Article 5.4** Personal biases should be actively avoided.
- **Article 5.5** Each question must be scored (1-10) with documented justification.
- Article 5.6 Evaluators should self-assess their own grading for biases.
- **Article 5.7** Lengthy explanations that pressure candidates should be avoided, as they create an unfair psychological burden.

6. Unjust Practices in Assessments

6.1 Forced Screen Sharing & Privacy Violations

- Article 6.1.1 Mandatory screen sharing during coding assessments violates candidate privacy.
- Article 6.1.2 Candidates should not be forced to use a webcam or share their entire screen unless necessary.

6.2 Responsible Use of AI in Assessments

Modern software development assessments aim to evaluate the ability to implement solutions within a given timeframe. With technological advancements, artificial intelligence (AI) has become an essential tool for optimizing this process. However, restricting its use in evaluations contradicts the reality of modern development. AI is here to stay, and prohibiting it in assessments is like trying to block out the sun with one's hands. Instead of banning AI, assessments should focus on a candidate's ability to use it strategically, assimilate its output, and enhance the quality of their solutions.

- **Article 6.2.1:** All tools may be used as part of the development process, provided that the candidate demonstrates critical thinking and the ability to assimilate and integrate Al-generated information into a coherent solution.
- **Article 6.2.2:** Evaluation should focus on how well candidates refine, adapt, and improve AI-generated content rather than solely detecting AI usage. Candidates must show an understanding of the concepts behind the solutions they present.
- **Article 6.2.3:** If there are specific restrictions on AI tool usage, these must be clearly stated before the assessment begins. Otherwise, candidates should be encouraged to use AI responsibly as a complement to their problem-solving skills.
- **Article 6.2.4:** Candidates should also be assessed on their ability to maximize Al's potential to enhance deliverables beyond the initial acceptance criteria. This includes optimizing efficiency, improving quality, and innovating solutions that exceed expectations, by using Al instead of making restrictions of use of Al.

6.3 Real-World Development Considerations

Since modern software development involves referencing documentation, assessments must allow:

- Article 6.3.1. Reasonable use of reference materials.
- **Article 6.3.2.** Copying, pasting, and adapting existing code where appropriate.

Article 6.3.3. Open-book or open-resource formats where applicable.

Article 6.3.4. Use of tools like Chat GPT, AI hints, Google, Stack Overflow, and GitHub repositories.

Article 6.3.5. Use of an IDE or personal tools without assuming misconduct.

7. Candidate Rights & Dispute Resolution

7.1 Right to Know Scores and Feedback

Article 7.1.1. Candidates must receive detailed feedback, including:

Final score breakdown Justifications for deductions Improvement suggestions

7.2 Right to Appeal

Article 7.2.1: A transparent appeal process must exist for candidates who believe they were unfairly evaluated. **Article 7.2.2:** Appeals should be reviewed by an independent panel, not the original evaluator. 7.2.3 If a candidate is accused of misconduct, they should have the opportunity to present their case with supporting evidence.

7.3 Right to Document the Assessment

7.3.1 Candidates should have the right to:

Article 7.3.1.1: Record the interview (audio-only) for transparency.

Article 7.3.1.2: Document all questions and answers.

Article 7.3.1.3: Provide their own self-evaluation of answers.

Article 7.3.1.4: Submit this documentation for HR review.

Article 7.3.1.5: Have their answers validated by an AI system to ensure fair grading.

8. Conclusion

Article 8.1: A fair technical assessment framework ensures evaluations are conducted transparently, objectively, and without bias.

Article 8.2: Companies must adopt standardized scoring criteria, avoid invasive monitoring practices, and allow candidates to appeal unfair judgments.

Article 8.3: By adhering to these principles, technical assessments can maintain integrity while ensuring that all candidates are evaluated fairly on their true merit.