

nova.

Nova Product Overview

for

Tharwah

v1.3

27th May 2025

Introduction

The Nova assessment platform will be used of assessing candidates and employees globally, but with close regional alignment for Saudi Arabia and the GCC Region. It will initially deliver the following assessments:

- A personality questionnaire, which will then allow a number of reports to be generated (e.g. overall traits, leadership behaviours profile, leadership derailment profile, team profile, career profile). Approx 30-40 screens of 4 multiple choice questions (from Strongly Agree to Strongly Disagree).
- A set of three cognitive assessments to measure numerical, verbal and cognitive reasoning. Approximately 15 questions in 15 minutes, drawn from a bank adaptively based on how well the candidate is performing as they progress. All questions are multiple choice response.
- A competency profiler where the client can define the key behaviours for a role, and from this the personality and abilities data can be compared to indicate candidate fit and provide a report and interview guide.
- A 360 degree feedback tool which enables candidates to be assessed against behaviours for a range of competencies at work. Feedback is provided on each question via multiple choice (from Strongly Agree to Strongly Disagree). Approx. 4 to 10 questions may be presented per screen, with around 60-100 per questionnaire depending which competencies are selected by the client.
- A situational judgment assessment to measure candidate behaviours, where a situation, image or video are presented and the candidate picks from 4 multiple choice options to indicate how they would respond. The format is similar to that for the cognitive assessments.
- An emotional intelligence assessment, using the same presentation format as the personality questionnaire but focused on how someone manages their emotions at work.

In essence, the solution comprises different types of question presentation that can then be deployed as ‘assessments’ which the candidate can complete.

There are three user levels:

- Super admin user – access at the top level, which is the same as for a client admin user but able to view the whole dataset in the platform. Super users can switch also switch on access to the different assessments one by one for each client user
- Client admin user – access of a client company to their own area of the platform, where they can then add and manage candidate projects, invitations and reports
- Candidate – access by an individual candidate to go in and complete their own assessments, or 360 degree feedback forms on other individuals

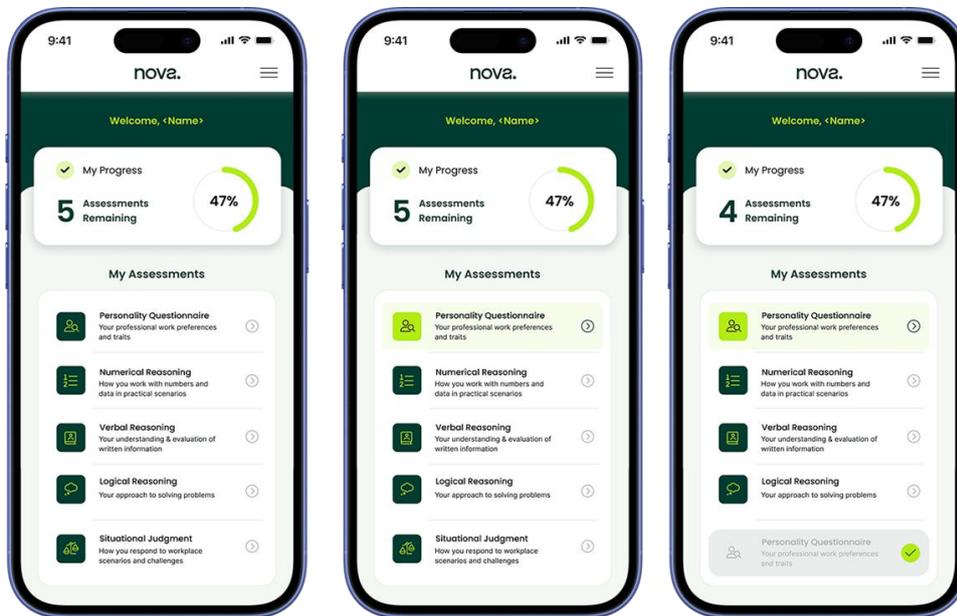
The candidate experience, admin user experience and reporting designs are all covered in depth in the Nova User Design deck which accompanies this document. The purpose of this document is primarily to outline how each section operates in practice.

Candidate User Experience

The key steps in the candidate journey are as follows:

- A candidate receive an invitation email from the admin user, with a unique token link they click on to then access the portal to complete their assessments
- They then enter their candidate homepage which shows them the tasks they need to complete, i.e. please complete the following assessments. Please note, an admin user may ask a candidate to just complete a single assessment (e.g. the personality tool), or multiple assessments.
- The candidate is then expected to go into each task where they complete the assessment. For example, if they then click to complete the personality questionnaire:
 - They will be presented with a data agreement screen where they agree for their data to be processed
 - They then have an intro screen describing what they need to do in the assessment
 - There is then a practice question to ensure they understand how to complete the test
 - Then they can begin the full assessment. This might be for example 30 screens of 4 questions each screen. Most of the assessments are untimed, but for the cognitive ability assessments these may have an overall time limit after which the candidate assessment will end at the point they have got to (e.g. they may have done 12 out of 15 questions).
- Once completed on an assessment, they return to their candidate homepage to complete any further tasks. They can come back into the page later to complete the other tasks if they wish.
- Reminder emails may also be received by the candidate while the project is live, for example to encourage them to complete (these are controlled by the admin user)
- Once completed, a candidate report may be made available to the candidate for which they will receive an email. When they return to their homepage, they can then access the PDF report.

An example of the candidate home page is shown below:



Key features of the candidate journey

Responsive design: The solution needs to have responsive design so render cleanly on both mobile and desktop. Mobile questions will generally stack with the stimuli at the top and multiple choice response options below. On desktop, the stimuli would go on the left and response options on the right.

Languages: The assessment needs to be able to complete in multiple languages. Initially the two options will be Arabic and English, with the capacities to add other languages later (see data model later in this document).

Branding controls: The candidate experience can be branded in the following ways (through branding controls by the admin user):

- Change background image on candidate home screen
- Add client logo
- Change primary, secondary, tertiary colours on user experience
- Change background image on cover page, and 1st/2nd/3rd colours in PDF report

Assessments

The more detailed journey for each individual assessment type is broken down in more detail here. Please note here, the summaries below outline the key steps and experience in each assessment once it has been started by the candidate.

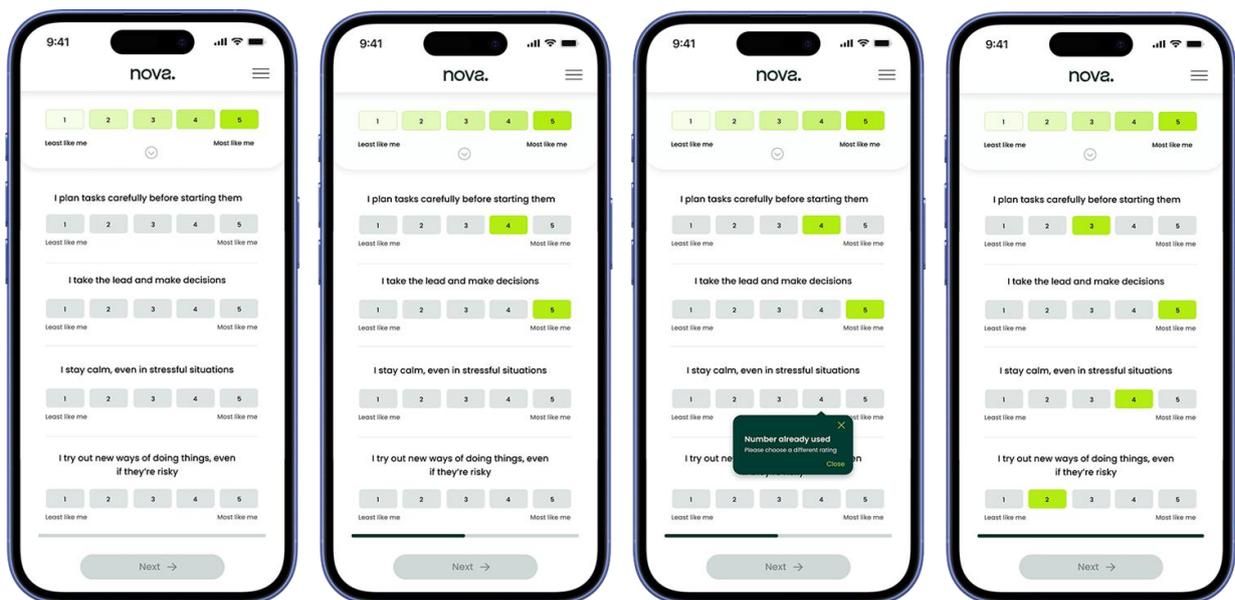
Personality Assessment

Once the candidate clicks on the relevant option in the candidate portal to start the personality assessment, the user journey is as follows:

1. First of all they will be presented with a data agreement screen where they agree for their data to be processed. They must accept this agreement to then continue.
2. They then have an intro screen describing what they need to do in the assessment. This will present a brief text summary of what the Personality assessment involves and what it measures.
3. As a first step, they then complete a 'practice question' to ensure they understand how to complete the test. This is simply an example survey item to ensure the candidate understands how it works. Then they confirm they are ready to start and move to the first question.
4. There will be approximately 30 screens measuring Behavioural Preferences and each screen contains four statements, and a grid to rate on a five point scale from 'Most Like Me' to 'Least Like Me'.

The questions and exact wording for each screen will be provided as we write the assessments over the coming two weeks.

The candidate has to rate each of the four statements, however the grid has a forced choice element so they cannot click an option in the same **COLUMN** twice. An illustrative example is shown below.



If they click on the same COLUMN an alert needs to pop up saying you can only pick one column. It will by default 'unclick' the earlier selection and select the most recently clicked item in that column.

Once the candidate has made a valid selection for all four statements, the NEXT bar is then active and they can progress to the next page.

As each question screen is completed, the scores on those question will be recorded to the database.

5. Once the candidate has completed the 30 screens on Most Like Me/Least Like Me, they will then complete a Motivation section.

This will have exactly the same format except for saying 'Very Important To Me' and 'Not Important To Me' as the scale labels.

They will have 6 screens in this format to complete, with 4 statements on each screen.

As each question screen is completed, the scores on those question will be recorded to the database.

6. At the end they will then see a Thank You screen, which will present a brief text summary thanking them for completing the assessment with a button to return to their candidate home page.

Scoring

Once the personality questionnaire is completed, the responses will have been stored for all the items in the assessment they completed.

At this point, items will be scores onto 'Scales' which are essentially groups of questions. For example, 8 items (questions) may load onto a particular scale such as Collaborative, Influencing or Complex Thinking.

Scoring is fairly straightforward for the personality questionnaire, using norm based scoring. This is explained in more depth in the 'scoring methods' document.

Basically let's say we have scores of 1, 3, 4, 4, 5, 4, 1, 3 across the eight questions loading onto the Collaborative scale.

The total score is 25 (the sum of these responses).

Please note that different questions can be scored **positively** (where Most Like Me gets a 5) or **negatively** (where Most Like Me gets a 1) when loading onto a particular scale.

This then has to be compared to a benchmark group before it makes any usable sense.

So let's say the mean average for the benchmark group is 30, and the standard deviation (spread) is 5. This means the standardized score is

Raw score minus Mean Average divided by Standard Deviation

25 minus 30 divided by 5. This equals -1

We then convert the standardized score to a 1 to 10 'Sten Score' as follows:

Z score of -1, multiplied by 2 plus 5.5. Then **round o** to the nearest integer number.

So in this example, the individual gets a sten score of 4 on Collaborative, out of 10.

This is done for all scales in the personality assessment, and would be run later at the point of running the report generation.

An important point to note is the results on the one personality questionnaire will generate different reports which are then available for different purposes.

- Trait report profile
- Leadership derailers report
- Team profile (with a radar chart graphic showing fit to each of 8 team styles)
- Career options fit profile
- Competency fit and Interview Guide

Emotional Intelligence assessment

This is being added at a later phase but utilises the same format and scoring approach as the Personality Assessment.

Cognitive assessments

This comprises a set of three cognitive assessments to measure numerical, verbal and cognitive reasoning. Approximately 15 questions in 15 minutes, drawn from a bank adaptively based on how well the candidate is performing as they progress. All questions are multiple choice response.

Please note the three cognitive tests can be allocated individually to a project. So just Verbal could be used, or all three might be allocated. They each have a separate button on the candidate portal to access and start the test.

Once the candidate clicks on the relevant option in the candidate portal to start each of these tests, the user journey is as follows:

1. First of all they will be presented with a data agreement screen where they agree for their data to be processed. They must accept this agreement to then continue.
2. They then have an intro screen describing what they need to do in the assessment. This will present a brief text summary of what the particular Cognitive assessment involves and what is measures.
3. As a first step, they then complete a 'practice question' to ensure they understand how to complete the test. This is simply an example survey item to ensure the candidate understands how it works. Then they confirm they are ready to start and move to the first question.
4. There will be a screen for each question (these are outlined below in more detail for verbal, numerical and abstract.
The questions and exact wording for each screen will be provided as we write the assessments over the coming two weeks.

Once the candidate has made a valid selection from the answer options, the NEXT bar is then active and they can progress to the next page.

As each question screen is completed, the scores on those question will be recorded to the database.

5. At the end they will then see a Thank You screen, which will present a brief text summary thanking them for completing the assessment with a button to return to their candidate home page.

There are right and wrong answers to each question, typically there will be 3 to 5 responses with one coded as '1' for the right answer and the other options all coded as '0' for the wrong answers.

The scoring uses an IRT (item response theory) algorithm using the 'NumPy' stats package which can be loaded into Python.

The details of this are laid out in the accompanying scoring document, but basically how it works is as follows:

Candidate answer a question

Based on cumulative difficult level and differentiation of the questions answered so far, the candidates ability level of 'Theta' is estimated

This is used to pick the next best question to ask the candidate

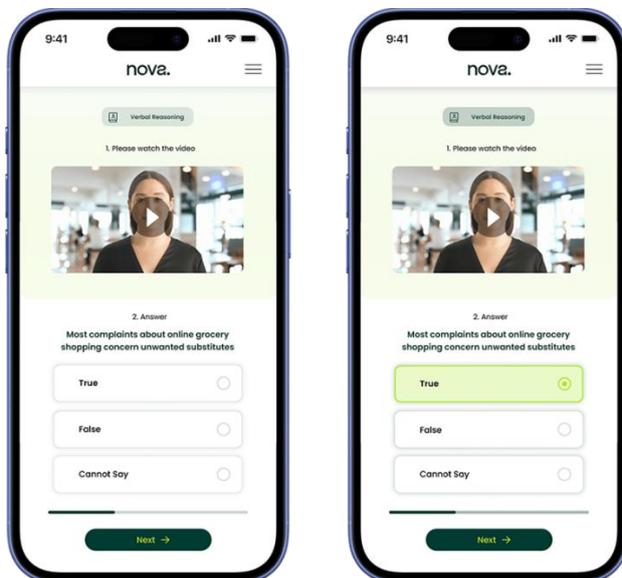
Once the statistical confidence level is tight enough, and we have enough information to know the candidate's ability level, the test will finish. This might typically be between 8 to 15 questions on each test.

We will set a minimum (e.g. 8) and maximum number of questions (e.g. 15) which can be answered, alongside an overall maximum time of 20 minutes per test. Typically most candidates will however finish before that. The test does not need a timer counting down but can alert them when they are at 5 minutes left, then 2 and 1 minute left. This reduces the anxiety level versus watching a timer going down.

The question formats look like the following for each of verbal, numerical and abstract reasoning.

Verbal example

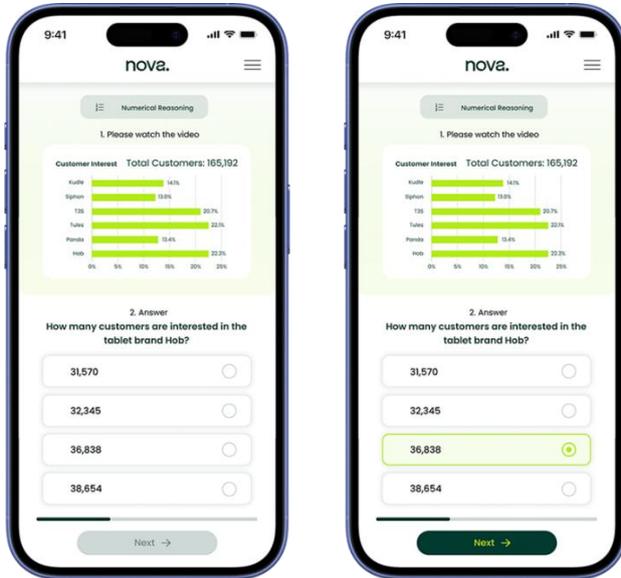
The verbal reasoning items will use a captioned video clip, using avatar like SYNthesia. This both enables easy translation, makes the item more interesting than just reading pure text. And importantly, cannot be as easily cheated by the candidate with Chat GPT or similar.



Each verbal item has three options, True, False or Cannot Say. The candidate can select/highlight one answer, and makes their final section by clicking Next to submit that is their answer. The correct answer if selected is scored as '1' and the wrong answers if selected are scored as '0'.

Please note there are parallel images and answers depending on which language is selected (Arabic or English initially, other languages to follow later).

Numerical Example

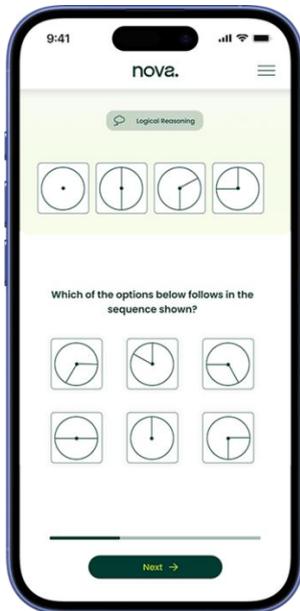


Each numerical question will present an image on the left, (or top if on a mobile), and there will then be four multiple choice options which will have numbers pertinent to the question. The candidate can select/highlight one answer, and makes their final section by clicking Next to submit that is their answer.

The correct answer if selected is scored as '1' and the wrong answers if selected are scored as '0'.

Please note there are parallel images and answers depending on which language is selected (Arabic or English initially, other languages to follow later).

Abstract logical example



The abstract logical reasoning questions present an image on the left (or top if on mobile) showing a series of items. Please note these are left to right in English, so we would have a reverse image to show for Arabic.

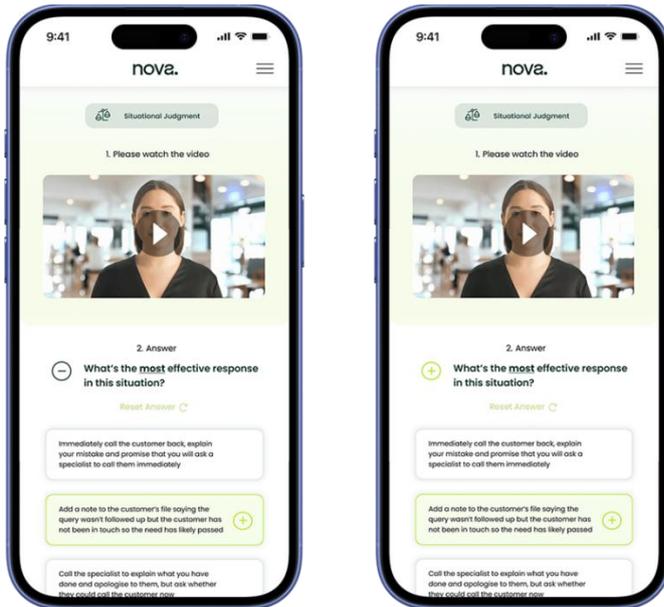
The candidate then selects one of the six images (which are effectively buttons to highlight) and then clicks Next to confirm their answer.

Please note there are parallel images and answers depending on which language is selected (Arabic or English initially, other languages to follow later).

Situational Judgment test

A situational judgment assessment will be added in a later phase. This will measure candidate behaviours, where a situation, image or video are presented and the candidate picks from 4 multiple choice options to indicate how they would respond.

The format is similar to that for the cognitive assessments.



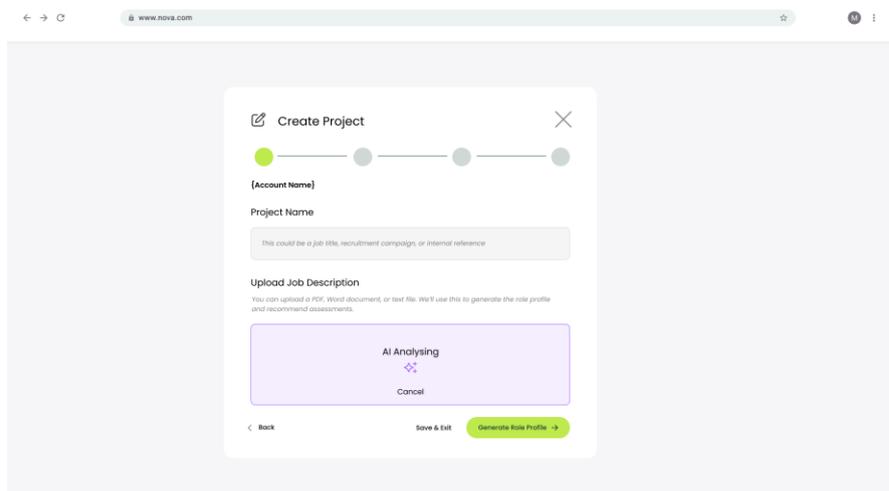
Competency mapper and role profiling

It's important to note this is a capability on the Admin side of the system rather than for candidates.

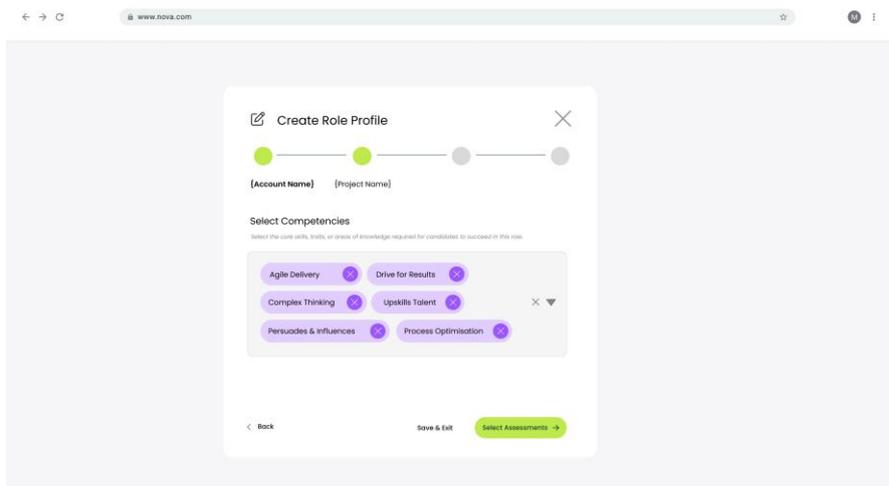
This enables an Admin to create a Role Profile, capturing what competencies are needed for a particular role. This progresses through a series of stages as outlined below.

When a candidate has completed the Personality and Cognitive assessments, this will enable their scores to be compared to the competencies needed for the role, to then provide a role fit profile.

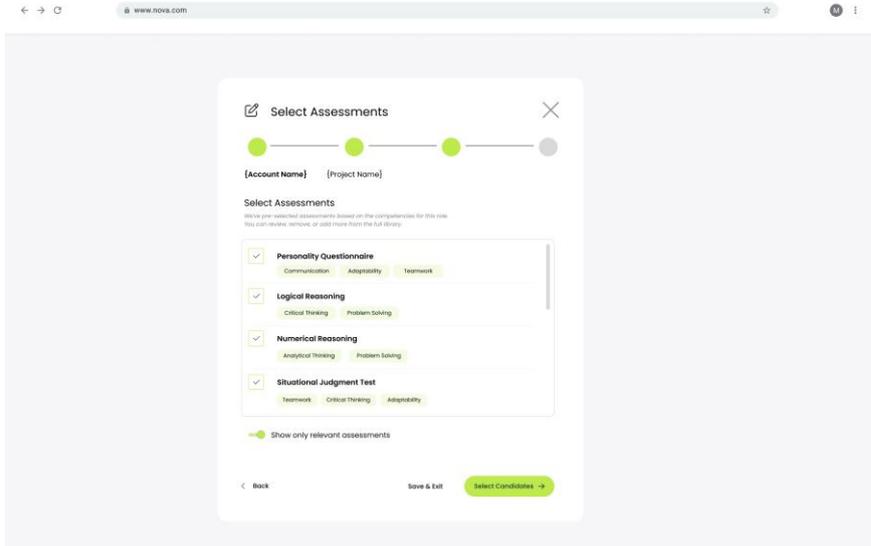
Firstly, the Admin User can upload an existing job description if available and the Agentic AI in the Nova platform will use this to indicate the best fit competencies for the role.



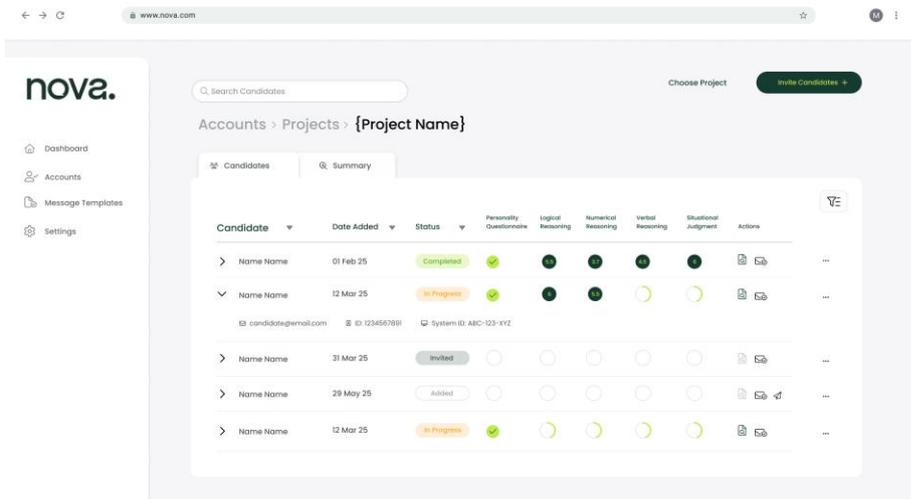
The Admin User will then have the opportunity to manually review and edit the competencies in the new Role Profile.



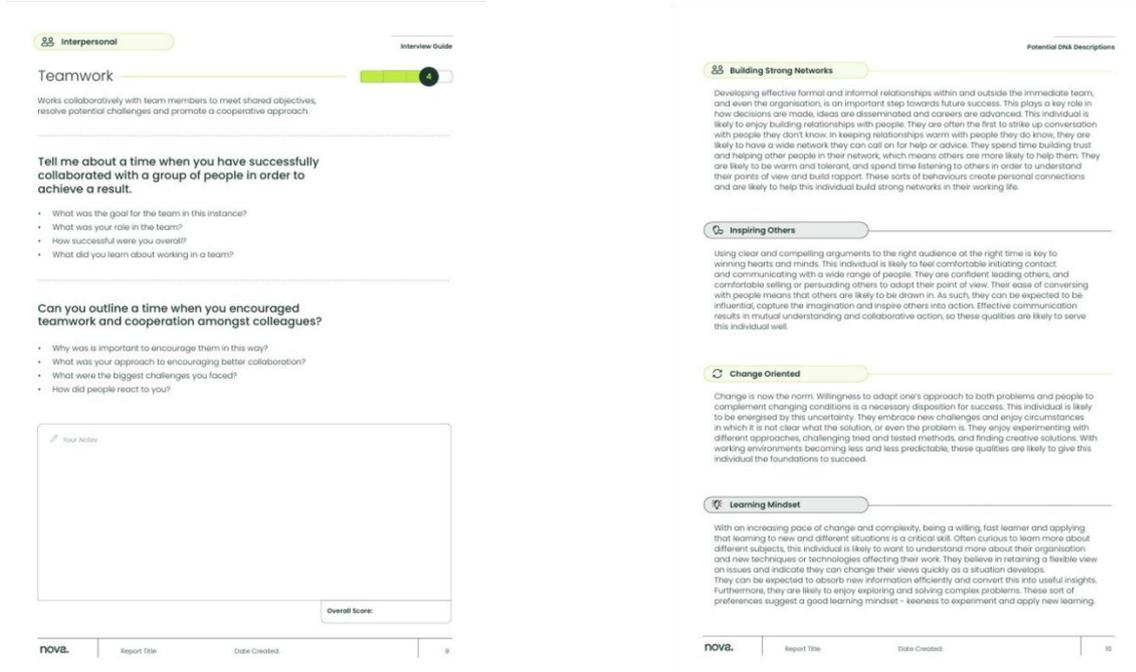
Following this the assessments which will be used to assess against the Role Profile can be confirmed:



This will show how they score versus the requirements (example image below) in the Project Dashboard for each candidate:



The specific Competency Role Mapper results then feed into the individual PDF for each candidate (the competency mapped report) as shown below:



360 degree feedback

The 360 degree feedback tool which enables candidates' performance in role to be assessed against relevant behaviours for a range of competencies at work.

When a 360 assessment is created, the Admin will make a selection of 6 to 12 competencies from the library of around 40 competencies. When people complete the 360, they only complete questions for those selected competencies.

Individual raters can then be allocated by the Admin as follows:

- Self (i.e. the candidate is rating their own performance)
- Manager (the respondent is the candidate's manager)
- Direct report (the respondent is someone who reports into the candidate)
- Peers (the respondent is a colleague of the candidate)
- Other (the respondent is another stakeholder, such as a customer or external to the firm)

As noted later on in under 'Data Model', every item answered in the 360 has a 'Ratee' (the person being rated) and a 'Rater' (the person doing the rating). In the case of self report, the candidate is both the Ratee and Rater at the same time.

Once the candidate clicks on the relevant option in the candidate portal to start a 360, the user journey is as follows:

1. First of all they will be presented with a data agreement screen where they agree for their data to be processed. They must accept this agreement to then continue.
2. They then have an intro screen describing what they need to do in the assessment. This will present a brief text summary of what the particular 360 assessment involves and what is measures.
3. As a first step, they then complete a 'practice question' to ensure they understand how to complete the test. This is simply an example survey item to ensure the candidate understands how it works. Then they confirm they are ready to start and move to the first question.
4. There will be a screen for each batch of questions, to rate on a 1 to 5 scale. See an illustrative example below (though we would have 5 options).

1. Question Page (Englisch)

Please rate [Feedback-Person]

1. Communication & information:

	does not apply	partly apply	apply	exceeds expectations
[Feedback-Person] actively collects feedback	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
[Feedback-Person] is determined and shows confidence, detached from the hierarchy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
[Feedback-Person] can balance interest groups	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
[Feedback-Person] provides positive feedback	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
[Feedback-Person] is able to accept fair and impersonal criticism	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
[Feedback-Person] can deal with critical suggestions and new ideas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
[Feedback-Person] promotes an open communication atmosphere	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
[Feedback-Person] chooses to express according to the concerned audience	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2. Question Page (Englisch)

The questions and exact wording for each screen will be provided as we write the assessments over the coming two weeks.

Once the candidate has made a valid selection for all the items on screen, the NEXT bar is then active and they can progress to the next page.

As each question screen is completed, the scores on those question will be recorded to the database.

5. At the end they will then see a Thank You screen, which will present a brief text summary thanking them for completing the assessment with a button to return to their candidate home page.

Feedback is provided on each question via multiple choice (from Strongly Agree to Strongly Disagree). There will be approx. 8 questions presented per screen, with around 36-72 per questionnaire depending which competencies are selected by the client.

All items are scored 1 to 5 and like with the Personality Assessment, scores on items can be mapped into Scales to give an overall and normed score on that scale.

Firstly the key to interpretation is provided.

360 Report Overview

This summary page provides an overview of all your results across the competencies included in your review

Number of Reviewers



Then the profile shows results for each rater group on each competency in the 360 (based on the chosen Role Profile).



Following this, there is accompanying developmental narrative reporting against each competency in the 360 assessment.

Potential DNA Descriptions

88 Building Strong Networks

Developing effective formal and informal relationships within and outside the immediate team, and even the organisation, is an important step towards future success. This plays a key role in how decisions are made, ideas are disseminated and careers are advanced. The individual is likely to enjoy building relationships with people. They are often the first to strike up conversation with people they don't know. In keeping relationships warm with people they do know, they are likely to have a wide network they can call on for help or advice. They spend time building trust and helping other people in their network, which means others are more likely to help them. They are likely to be warm and tolerant, and spend time listening to others in order to understand their points of view and build rapport. These sorts of behaviours create personal connections and are likely to help this individual build strong networks in their working life.

66 Inspiring Others

Using clear and compelling arguments to the right audience at the right time is key to winning hearts and minds. This individual is likely to feel comfortable initiating contact and communicating with a wide range of people. They are confident leading others, and comfortable selling or persuading others to adopt their point of view. Their ease of conversing with people means that others are likely to be drawn in. As such, they can be expected to be influential, capture the imagination and inspire others into action. Effective communication results in mutual understanding and collaborative action, so these qualities are likely to serve this individual well.

66 Change Oriented

Change is now the norm. Willingness to adapt one's approach to both problems and people to complement changing conditions is a necessary disposition for success. The individual is likely to be energised by this uncertainty. They embrace new challenges and enjoy circumstances in which it is not clear what the solution, or even the problem is. They enjoy experimenting with different approaches, challenging tried and tested methods, and finding creative solutions. With working environments becoming less and less predictable, these qualities are likely to give this individual the foundations to succeed.

66 Learning Mindset

With an increasing pace of change and complexity, being a willing, fast learner and applying that learning to new and different situations is a critical skill. Often curious to learn more about different subjects, this individual is likely to want to understand more about their organisation and new techniques or technologies affecting their work. They believe in retaining a flexible view on issues and indicate they can change their views quickly as a situation develops. They can be expected to absorb new information efficiently and convert this into useful insights. Furthermore, they are likely to enjoy exploring and solving complex problems. These sort of preferences suggest a good learning mindset - keenness to experiment and apply new learning.

Admin User Experience

The admin user will typically be either the super user centrally, or the client admin user in each individual client company who are using the system. For instance, this might be members of the recruitment or talent development team in a specific company who are using the tools to hire and assess their people.

The key steps in the admin user journey are as follows:

The Admin User can securely access the admin area of the platform via username and password.

Once in the platform, the Admin User homepage allows them to navigate between the following activities:

Create and manage accounts and projects

The admin user can create an 'account', which might for example be for all activity in a division of their company

The admin user can then create projects within an account. For example, a project may be a recruitment campaign for this years graduate entrants to that division of the company.

View project dashboard

Within a project, the candidate can then view the candidates in that project, what assessment they have been invited to complete, status (invited, in progress, completed), summary scores and access the available PDF reports on individual candidates. When a new project is created, the assessments to be used are selected by the admin user at this point. Admin users will be able to filter and sort candidates by date, completion status or scores within the project view.

Manage email templates

The admin user can draw on existing email templates for Invitation, Reminders and Sharing Reports. There will be a default 'parent' template for each and in this screen the admin user can edit and save their own templates to match the particular campaign or activity.

Add and invite candidates

In this view, which is accessible while in View Project Dashboard, the admin user can add new candidates to the project; and invite new or existing candidates to complete the assessments for that project.

Summary dashboard

Linked to the project dashboard, as well as the tabular view of all candidates in that project, the admin user can view some summary analytics for the project. This will show:

- % completion of each assessment type
- Number of candidate completions over time (in a column chart by day/date)
- Average scores on key scales within the project



Generate individual reports

These are accessed via the View Project Dashboard screen, and a specific PDF report (e.g. the Personality Trait Profile report) can be generated from this screen. Any batched reports would be sent to the admin user via email link. Note any reporting will run as a background process or on a separate reporting server to ensure it does not clog up the regular flow of candidates going through the system.

Individual PDF Reporting

The reports on individuals, which are then typically shared within the organization with hiring managers, will need to be output into PDF form. A range of illustrative examples are included in the examples pack. These will include:

- Template reports for personality questionnaire outputs :
 - Trait report profile (same format for leadership reports)
 - Team profile (likely with a radar chart graphic showing fit to each of 8 team styles)
 - Career options fit profile
 - Competency fit and interview guide

- Template profile chart for percentile scores (covering both cognitive ability and situational judgment tools)

- Template profile chart for 360 degree feedback

This will require a PDF report generator tool to be selected and included in the platform, based on a templated model so new templates can be added to the solution at a later date if needed.

These report designs are all covered in depth in the User Design deck which accompanies this document.

Notes on Data Model Structure

We will be providing a much more in depth overview of the data model needed to support the solution, but a few key points are noted below.

Account and project structure

The overall structure of the users in the system will be hierarchical as noted below:

- Account
- Project
- Candidates

Assessment content

One consistent data model will be used for all questions, to ensure consistency across the platform and avoid unnecessary complexity.

There will be different 'front end' screen formats for different question types

However, the structure within each assessment is consistent as follows:

Assessment

A series of questions are assembled in an Assessment. The assessment provides the running order for the intro screens and questions.

There will be a branching feature available, where different responses can then mean the candidate 'skips forward' to a particular question. E.g. They get question 1 wrong and go to question 2. Or get question 1 right, and skip to question 3.

Item Screen Wrapper

Each screen presented can contain the following:

A selected item screen wrapper, determining how the content is presented on screen.

One or more stimuli – e.g. text, an image or video file (we can restrict to standard formats).

One or more response options (e.g. rate this from Strongly Agree to Strongly Disagree on a five point scale).

Stimuli

As noted above, within the Item Screen Wrapper, different stimuli information can be added be that text, image or a video file.

Response options

Response options can be (a) a radio button option, (b) an image to click on, or (c) an open response text box.



All response options for a and b above will capture a numerical score associated with the particular choice of button (e.g. Strongly Agree = 5, Agree = 4, etc). This can be specified when we build the assessments for each response option.

Every response completed will have a Rater (the candidate doing the rating) and the Ratee (the candidate in the system it is about).

When candidate X completes a personality questionnaire it is 'Self Report', meaning they are completing a question about themselves. They are Rater AND Ratee.

When candidate X completes a 360 question about candidate Y, then candidate X is the Rater and candidate Y is the Ratee.

Languages

All text including all items in the system can be available in any language that has been made available. For example, the candidate user will be able to switch between Arabic or English in the system on their homepage. They will stick to the language they choose throughout an assessment once its started.