

CS4116

PsychNova Design Document

Introduction:

PsychNova is an online service on a mission to advance and expand the careers of people in the psychic industry. It caters to dozens of professions such as astrology, fortune-telling, palmistry, mediumship and more. PsychNova strives to abolish the stigma associated with metaphysical services and offers a secure and friendly experience to its customers.

PsychNova allows users to create personalized profiles for themselves and their businesses. Users are able to advertise their candidacy by specifying their skills, qualifications and employment history. They can connect with other PsychNova users and build communities in their fields.

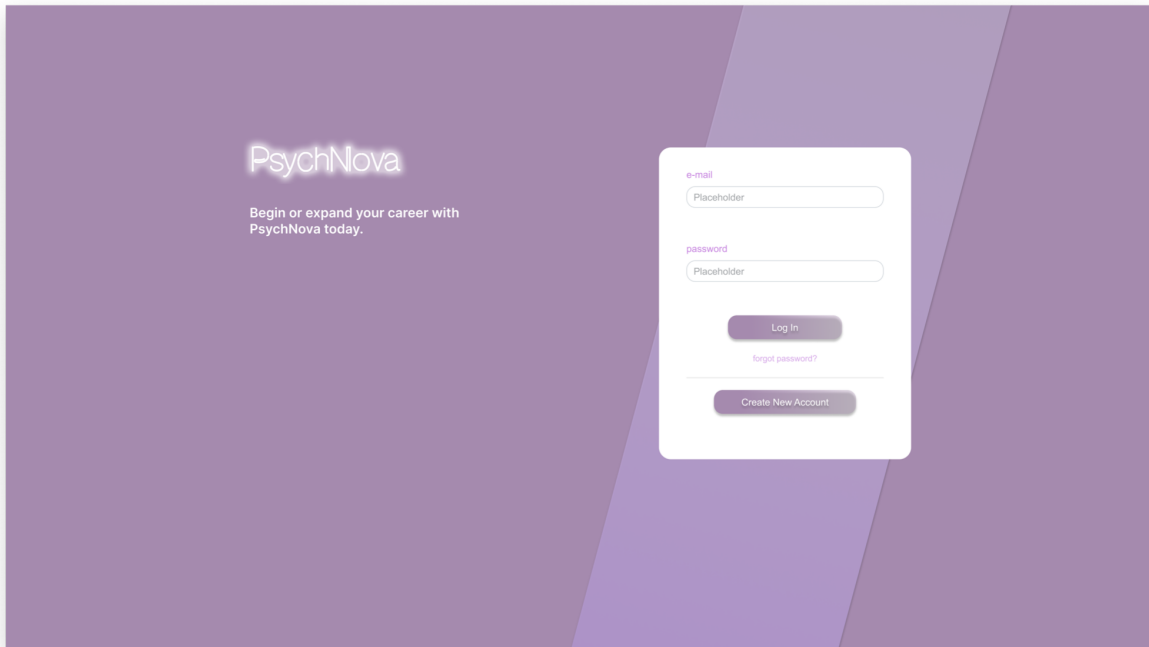
PsychNova helps organisations find qualified candidates, allowing them to list and advertise vacancies specific to their industry. Registered users have the ability to search, view and apply to these jobs in real time.

High Level Functionality:

- Users are able to register
- Registered users are able to log in
- Users are able to personalize their profiles with the following attributes:
 - Age
 - Gender
 - Description
 - Astrological sign: star, moon, rising
 - Current location
 - Current workplace
 - Employment status
 - Profile picture
- Users are able to create organisations and showcase the following attributes:
 - Organisation name
 - Organisation description
 - Organisation logo
 - Pending vacancies at the organisation
- Organisations are able to share vacancies by specifying the following attributes:
 - Role
 - Salary range
 - Description
- Users are able to interact with the website:
 - Share their thoughts and ideas by creating posts
 - Send/accept/decline connection requests to/from other users
 - Apply to vacancies listed by organisations
 - Edit and update their profile information
- Users are able to view content catered to them on their timeline:
 - Posts from connected users
 - Relevant vacancies
 - Pending connection requests from other users
- Users are able to view other user and organisation profiles
- Administrators are able to regulate the website to get rid of offensive content:
 - Ban/Unban users
 - Delete posts
 - Delete vacancies

Web Page Mockups:

1. Login page:



The login page features a purple background with a white login form on the right. The form includes fields for 'e-mail' and 'password', both with placeholder text. Below the fields are buttons for 'Log In' and 'Create New Account'. A link for 'forgot password?' is located between the two buttons.

PsychNova

Begin or expand your career with PsychNova today.

e-mail
Placeholder

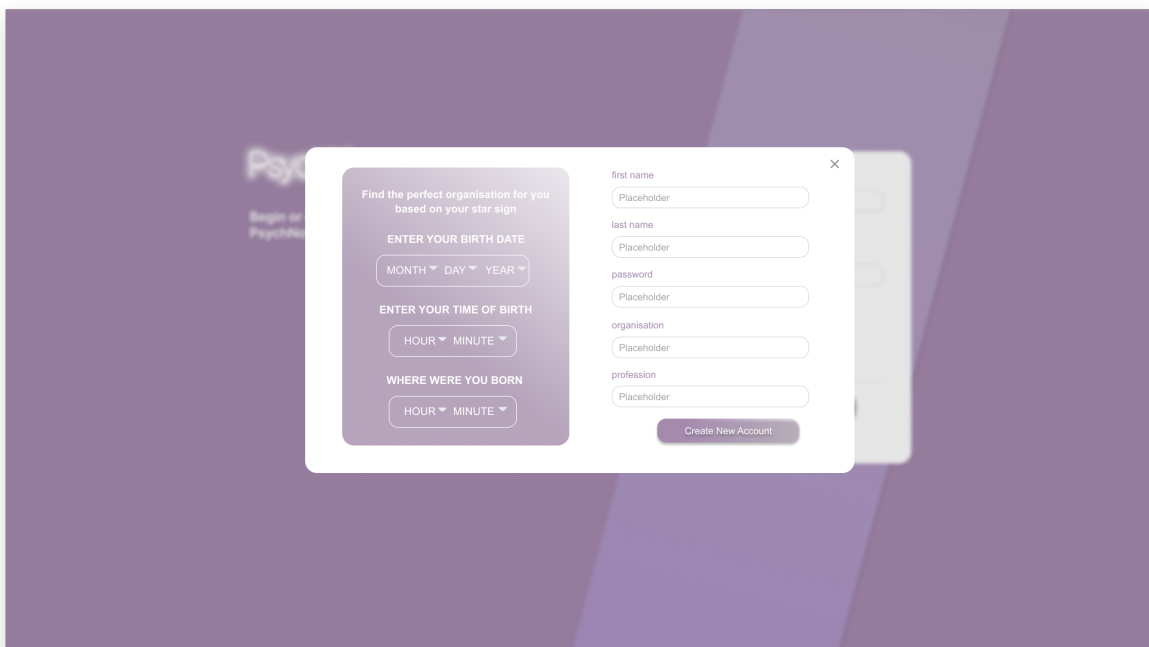
password
Placeholder

Log In

[forgot password?](#)

Create New Account

2. Sign up page:



The sign up page features a purple background with a white sign up form in the center. The form includes a section for 'Find the perfect organisation for you based on your star sign' with a 'Create New Account' button. To the right of this section are fields for 'first name', 'last name', 'password', 'organisation', and 'profession', each with a placeholder. A 'Create New Account' button is also at the bottom right.

PsychNova

Begin or expand your career with PsychNova today.

Find the perfect organisation for you based on your star sign

ENTER YOUR BIRTH DATE

MONTH ▼ DAY ▼ YEAR ▼

ENTER YOUR TIME OF BIRTH

HOUR ▼ MINUTE ▼

WHERE WERE YOU BORN

HOUR ▼ MINUTE ▼

Create New Account

first name
Placeholder

last name
Placeholder

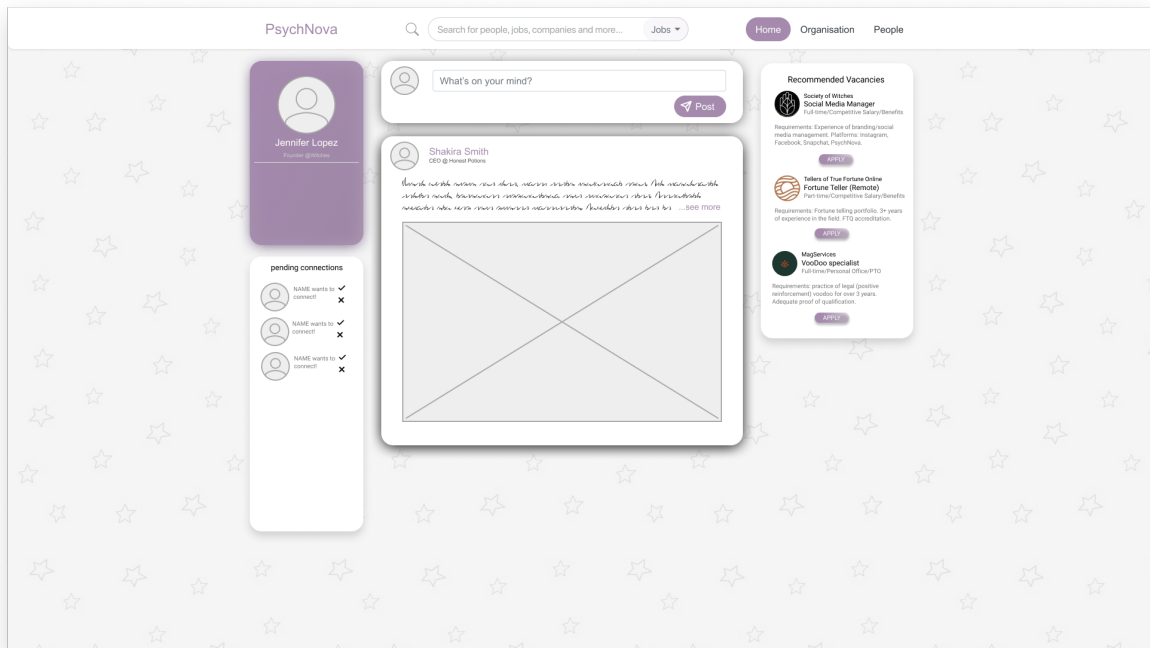
password
Placeholder

organisation
Placeholder

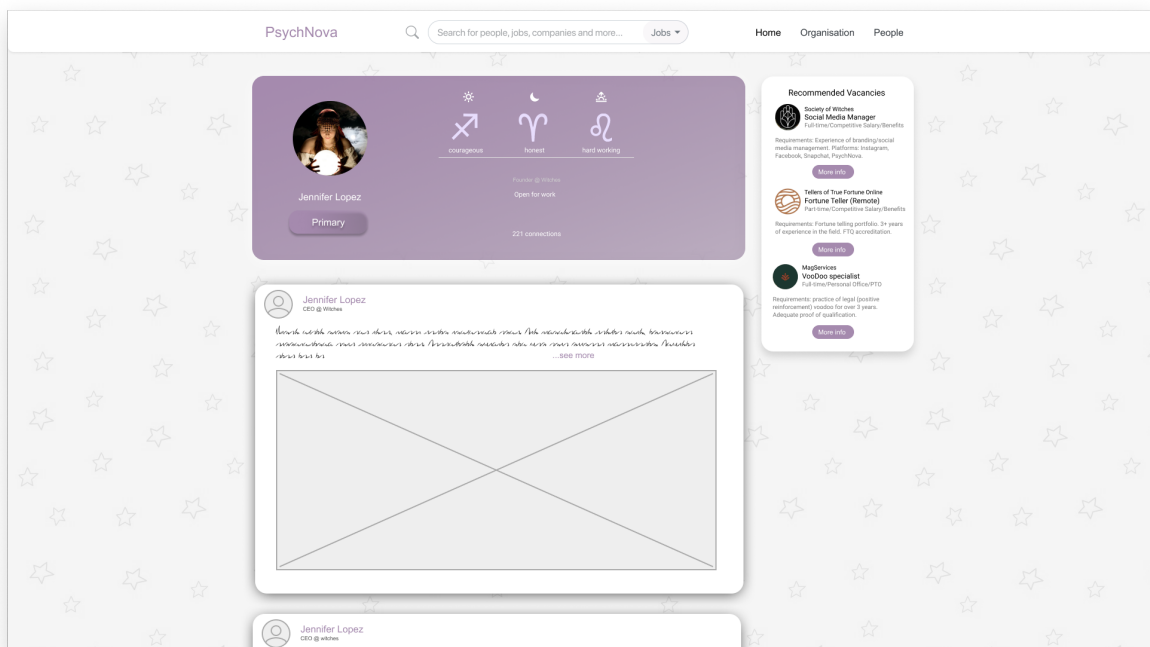
profession
Placeholder

Create New Account

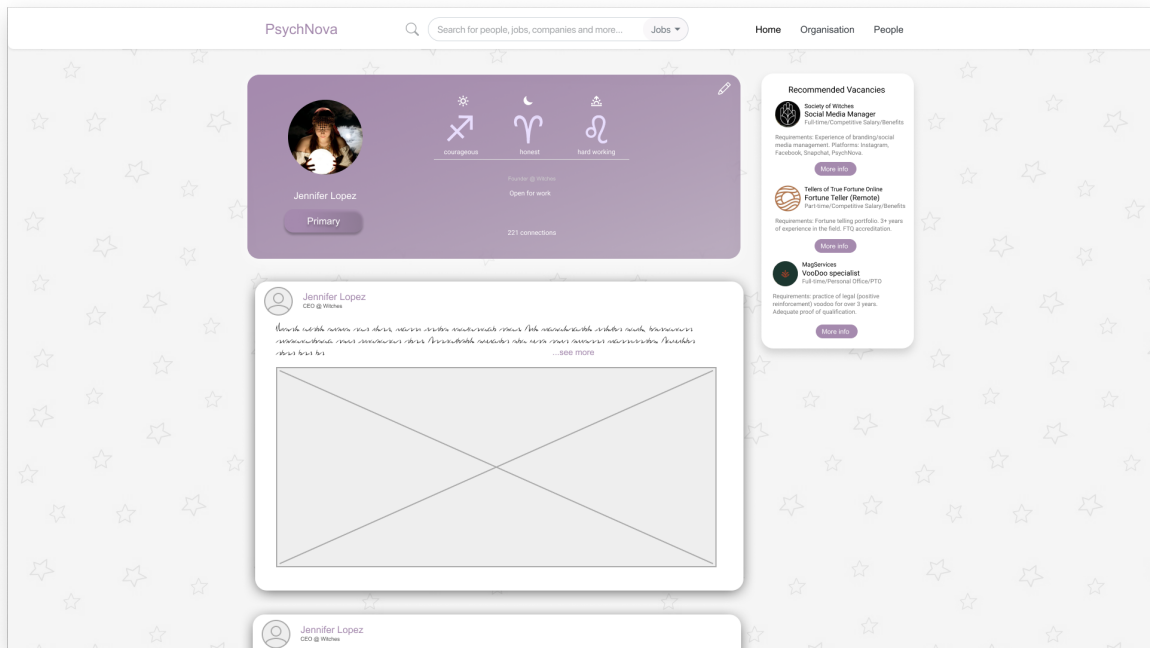
3. News feed:



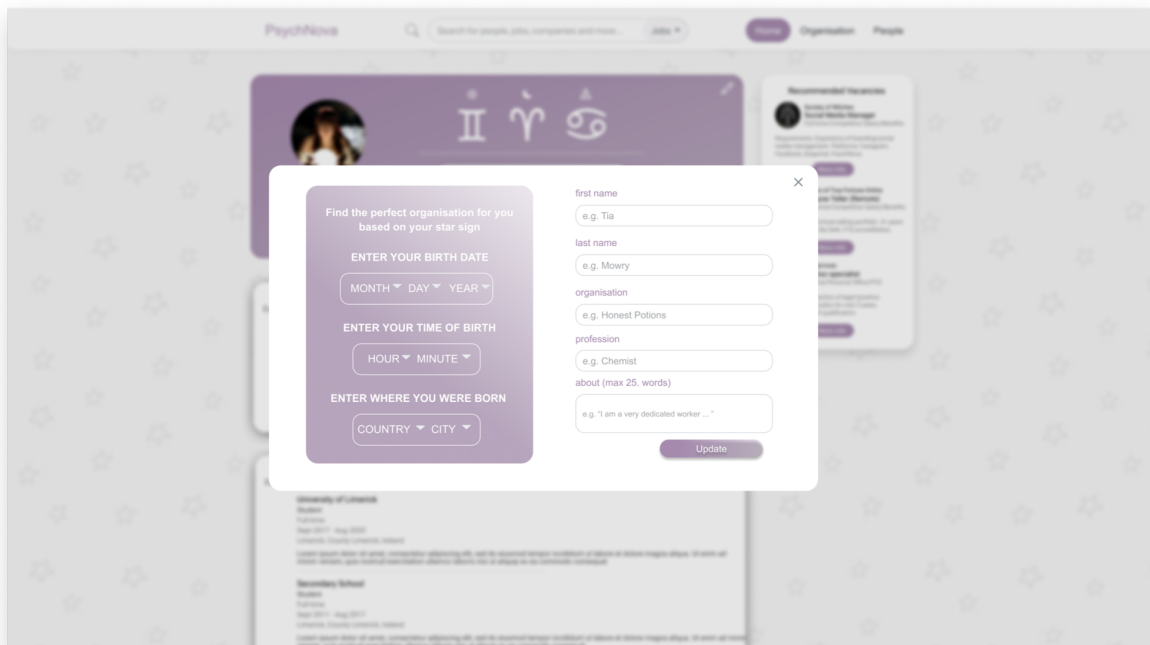
4. Profile view:



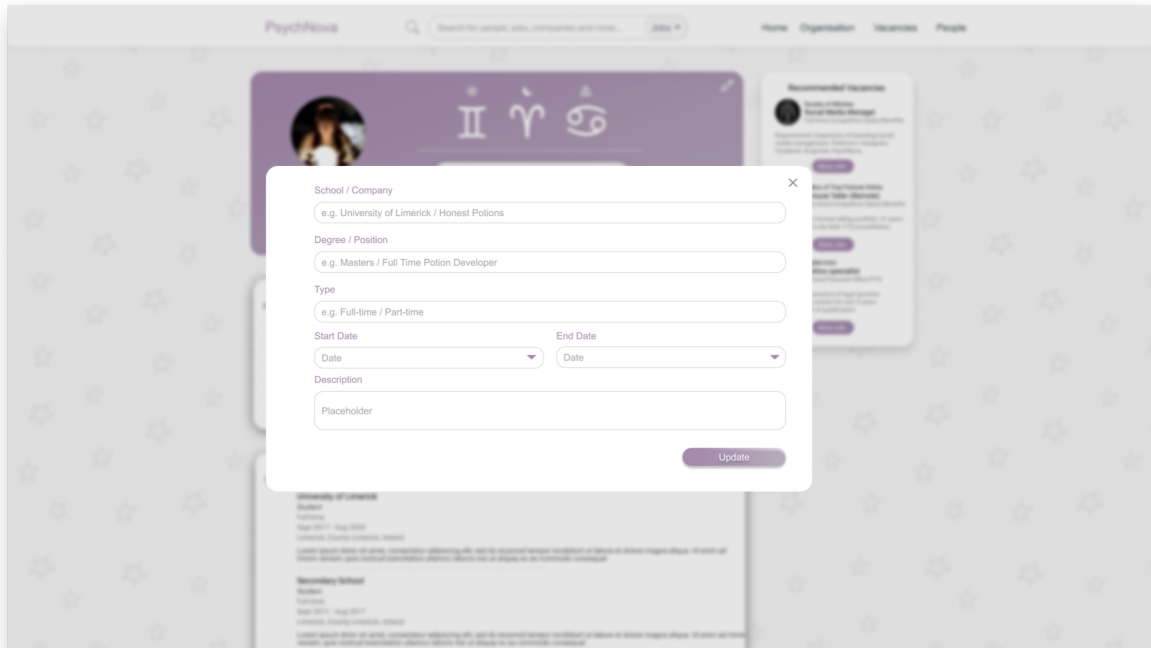
5. Profile view from user/administrator perspective:



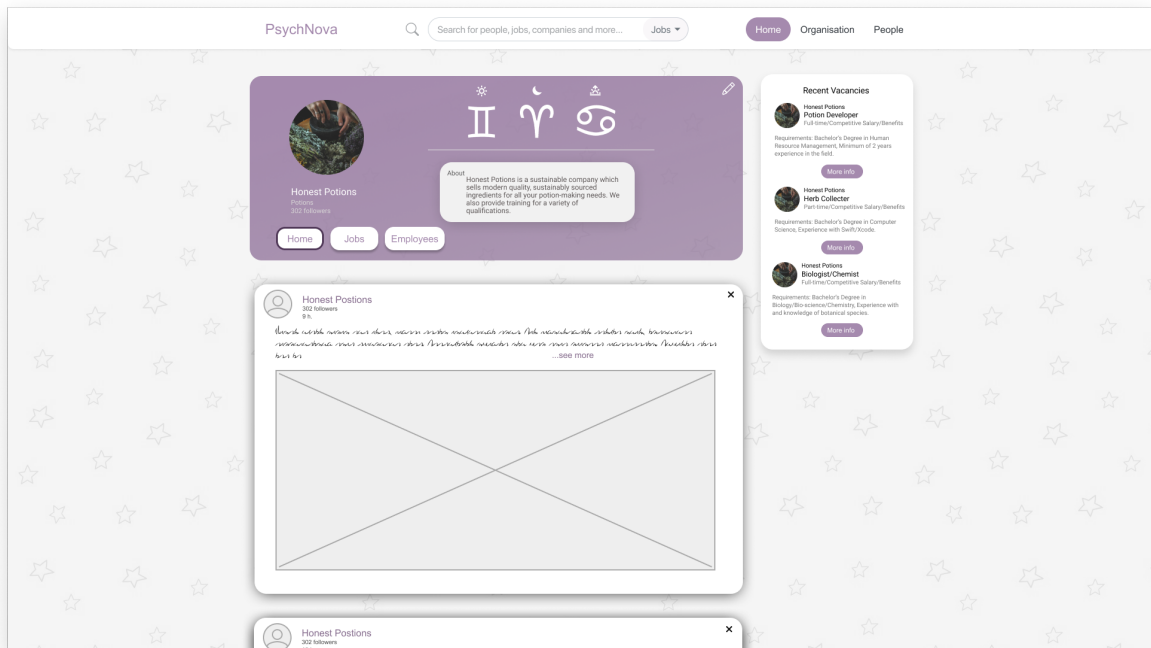
6. Profile view, editing about me section:



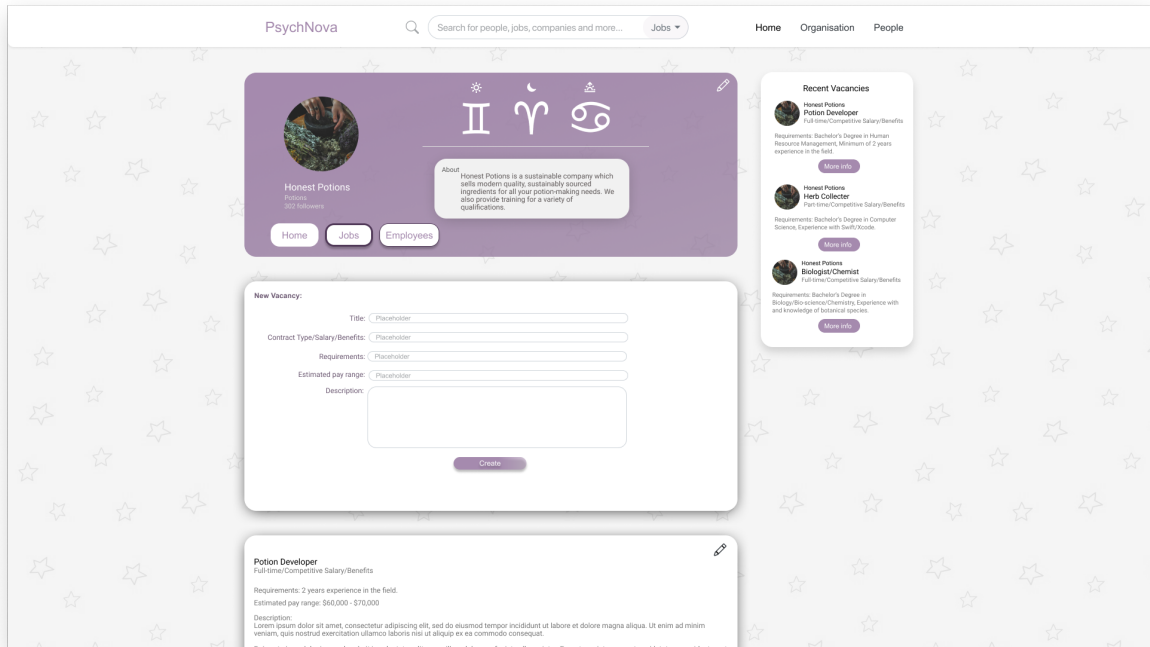
7. Profile view, editing/adding qualifications and experience:



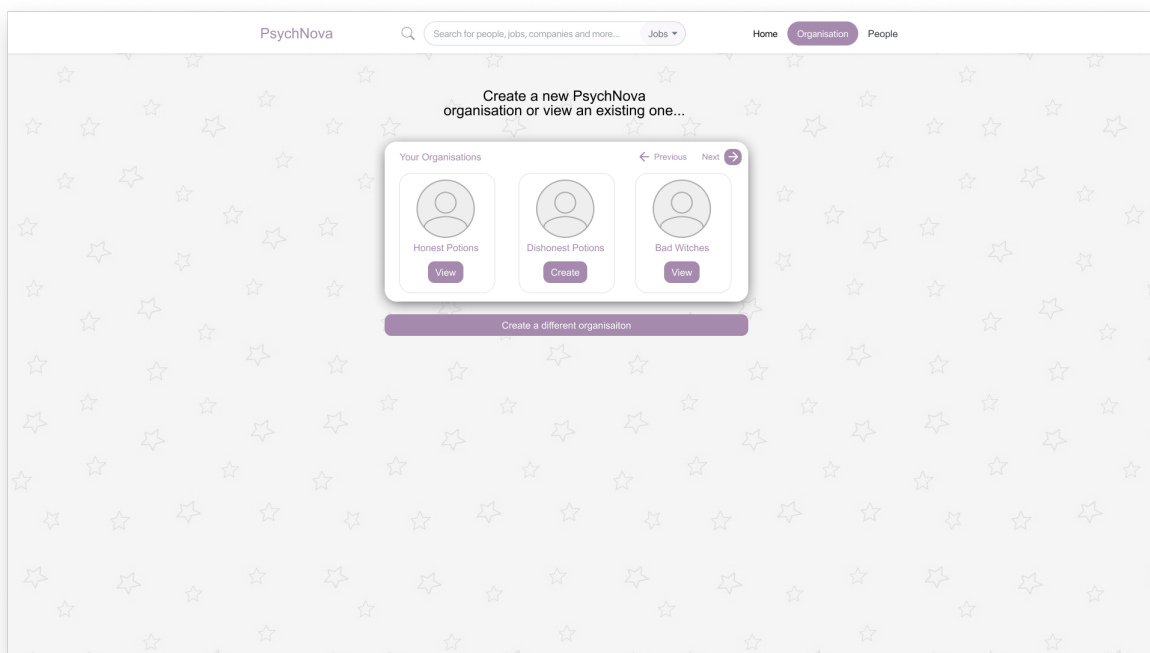
8. Organisation profile home view from the organisations/administrators perspective:



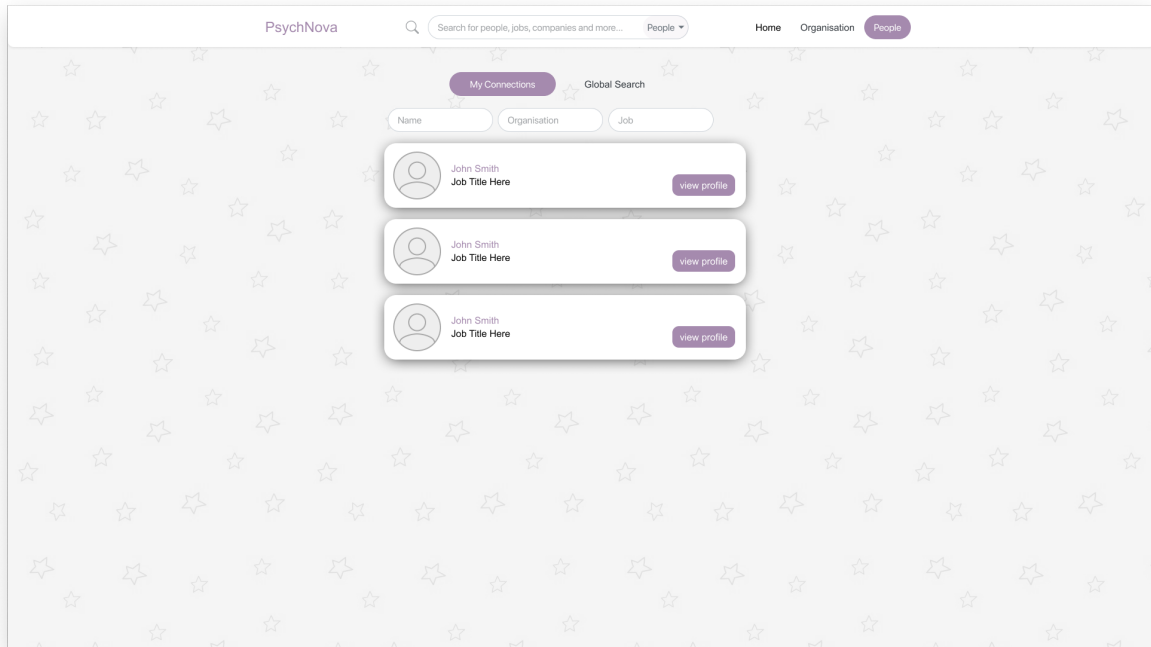
9. Organisation profile vacancies view from the organisations/administrators perspective:



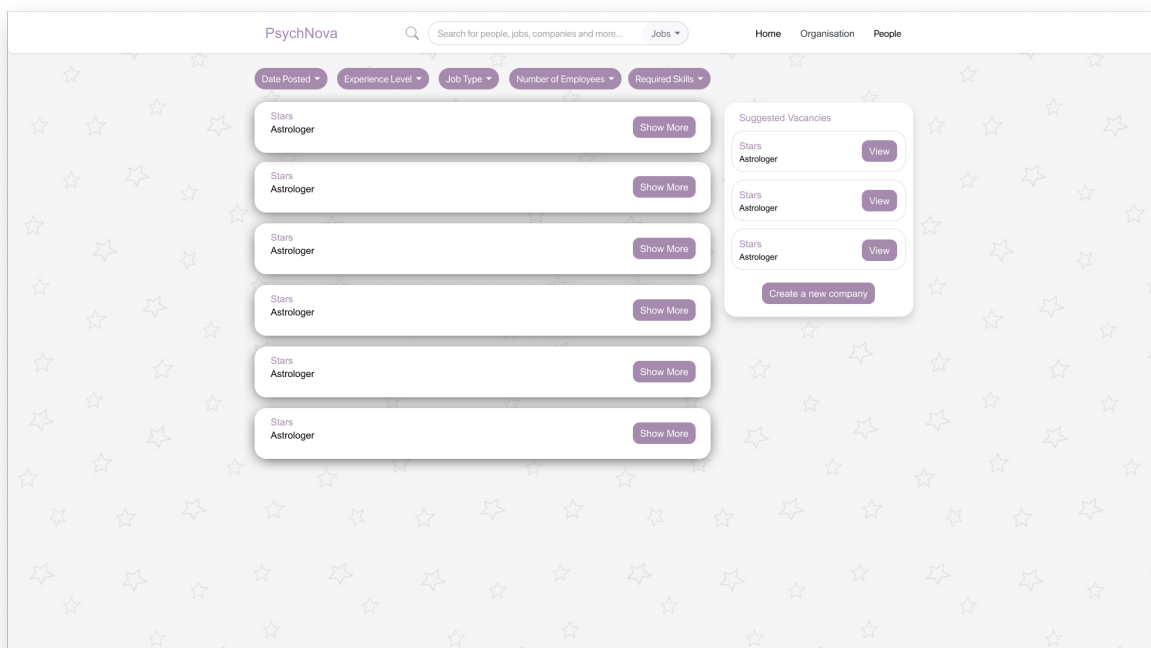
10. Organisations page:



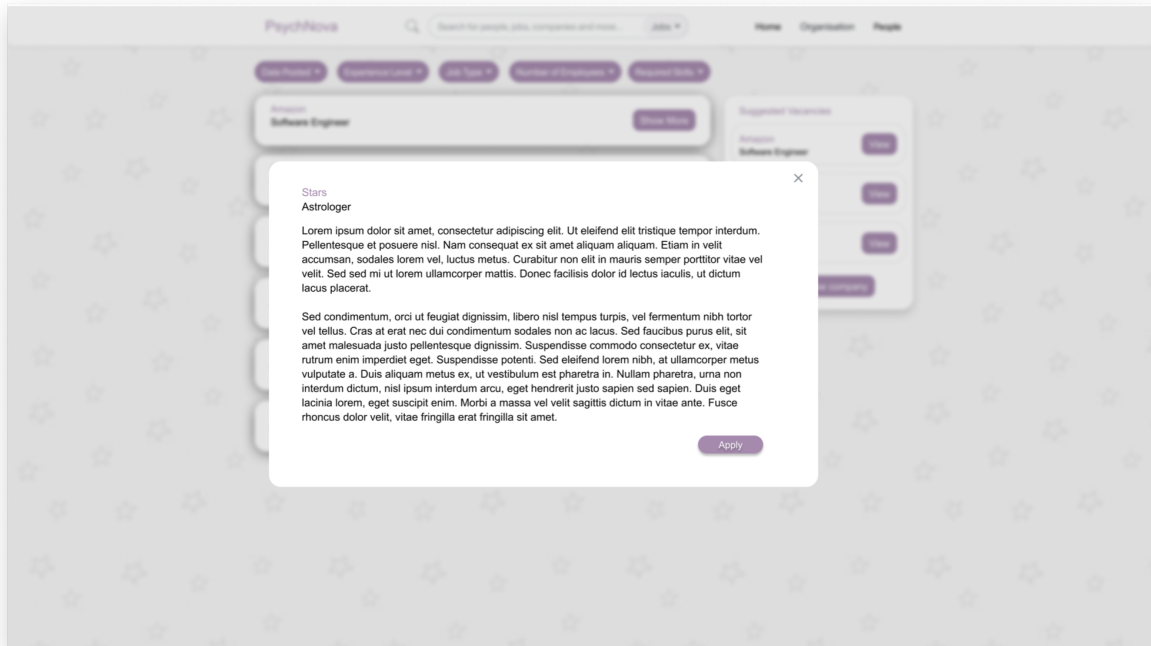
11. People page:



12. Vacancy search:



13. Show more of a vacancy:



Database Tables:

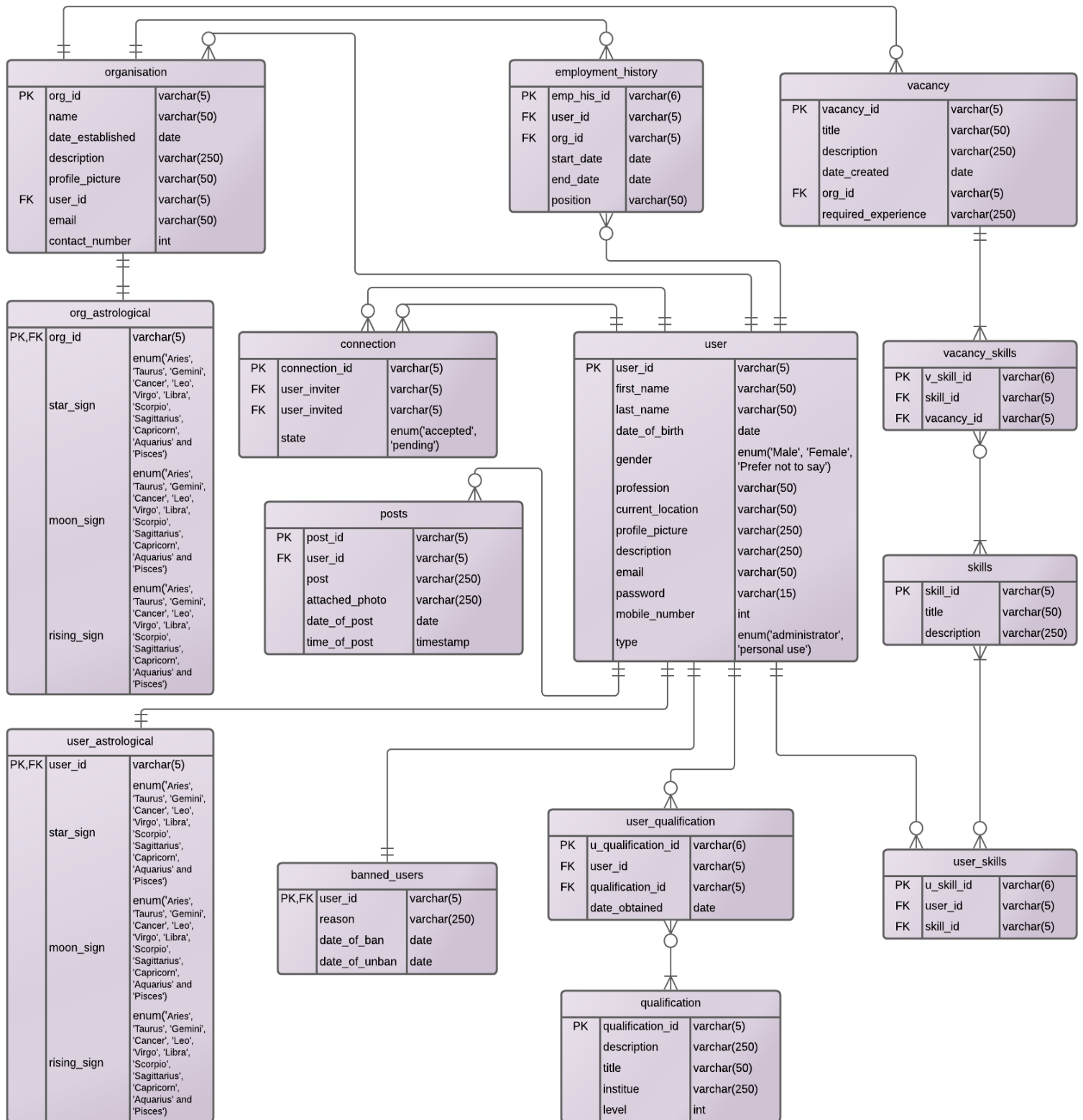


Table 1: user table

This table describes a user of PsychNova. It has common information fields such as first_name, last_name etc. it also has the fields “type” and “description”. “type” describes the type of user this information belongs to and “description” allows the user to write a description about themselves to display on their profile.

Field	Type	Key Type
user_id	varchar(5)	PK
first_name	varchar(50)	
last_name	varchar(50)	
date_of_birth	date	
gender	enum('Male', 'Female', 'Prefer not to say')	
profession	varchar(50)	
current_location	varchar(50)	
profile_picture	varchar(250)	
description	varchar(250)	
email	varchar(50)	
password	varchar(15)	
mobile_number	int	
type	enum('administrator', 'personal use')	

Table 2: connection table

This table holds connection information between two users. Who invited whom and the state of that invite.

Field	Type	Key Type
connection_id	varchar(5)	PK
user_inviter	varchar(5)	FK
user_invited	varchar(5)	FK
state	enum('accepted', 'pending')	

Table 3: user astrological table

This table is used to hold the astrological information of a user after their astrological signs have been calculated.

Field	Type	Key Type
user_id	varchar(5)	PK, FK
star_sign	enum('Aries', 'Taurus', 'Gemini', 'Cancer', 'Leo', 'Virgo', 'Libra', 'Scorpio', 'Sagittarius', 'Capricorn', 'Aquarius', and 'Pisces')	
moon_sign	enum('Aries', 'Taurus', 'Gemini', 'Cancer', 'Leo', 'Virgo', 'Libra', 'Scorpio', 'Sagittarius', 'Capricorn', 'Aquarius', and 'Pisces')	
rising_sign	enum('Aries', 'Taurus', 'Gemini', 'Cancer', 'Leo', 'Virgo', 'Libra', 'Scorpio', 'Sagittarius', 'Capricorn', 'Aquarius', and 'Pisces')	

Table 4: organisation astrological table

This table is used to hold the astrological information of an organisation after its astrological signs have been calculated.

Field	Type	Key Type
org_id	varchar(5)	PK, FK
star_sign	enum('Aries', 'Taurus', 'Gemini', 'Cancer', 'Leo', 'Virgo', 'Libra', 'Scorpio', 'Sagittarius', 'Capricorn', 'Aquarius', and 'Pisces')	
moon_sign	enum('Aries', 'Taurus', 'Gemini', 'Cancer', 'Leo', 'Virgo', 'Libra', 'Scorpio', 'Sagittarius', 'Capricorn', 'Aquarius', and 'Pisces')	
rising_sign	enum('Aries', 'Taurus', 'Gemini', 'Cancer', 'Leo', 'Virgo', 'Libra', 'Scorpio', 'Sagittarius', 'Capricorn', 'Aquarius', and 'Pisces')	

	'Aquarius', and 'Pisces')	
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Table 5: skills table

This table is used to hold information about different skills.

Field	Type	Key Type
skill_id	varchar(5)	PK
title	varchar(50)	
description	varchar(250)	

Table 6: user skills table

This table is used to hold information about the skills a particular user has. We will use this to suggest vacancies to users based on their skills.

Field	Type	Key Type
u_skill_id	varchar(5)	PK
user_id	varchar(5)	FK
skill_id	varchar(5)	FK

Table 7: vacancy skills

This table is used to hold the information about the skills associated with a particular vacancy. We will use this to suggest vacancies to users based on their skills and the skills of a vacancy.

Field	Type	Key Type
v_skill_id	varchar(6)	PK
skill_id	varchar(5)	FK
vacancy_id	varchar(5)	FK

Table 8: vacancy table

This table is used to store the vacancies available and what organisations they belong to.

Field	Type	Key Type
vacancy_id	varchar(5)	PK
title	varchar(250)	
description	varchar(250)	
date_created	date	
org_id	varchar(5)	FK
required_experience	varchar(250)	

Table 9: organisation table

This table is used to store common information on an organisation and what user made that organisation.

Field	Type	Key Type
org_id	varchar(5)	PK
name	varchar(50)	
date_established	date	
description	varchar(250)	
profile_picture	varchar(50)	
user_id	varchar(5)	FK
email	varchar(50)	
contact_number	int	

Table 10: employment history

This table is used to store the information on a users previous employment history.

Field	Type	Key Type
emp_his_id	varchar(5)	PK
user_id	varchar(5)	FK

org_id	varchar(5)	FK
start_date	date	
end_date	date	
position	varchar(50)	

Table 11: user qualification

This table is used to store the information of the qualifications of a user.

Field	Type	Key Type
u_qualification_id	varchar(6)	PK
user_id	varchar(5)	FK
qualification_id	varchar(5)	FK
date_obtained	date	

Table 12: qualification table

This table is used to store information on qualifications.

Field	Type	Key Type
qualification_id	varchar(5)	PK
description	varchar(250)	
title	varchar(50)	
institute	varchar(250)	
level	int	

Table 13: posts table

This table is used to store all the posts made by users to PsychNova.

Field	Type	Key Type
post_id	varchar(5)	PK
user_id	varchar(5)	FK
post	varchar(250)	

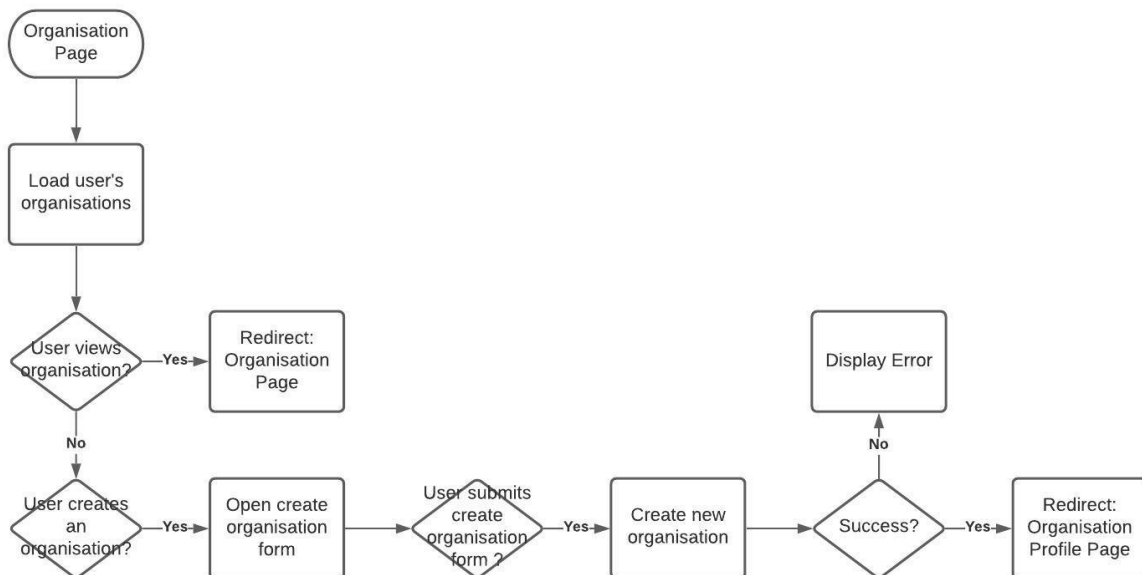
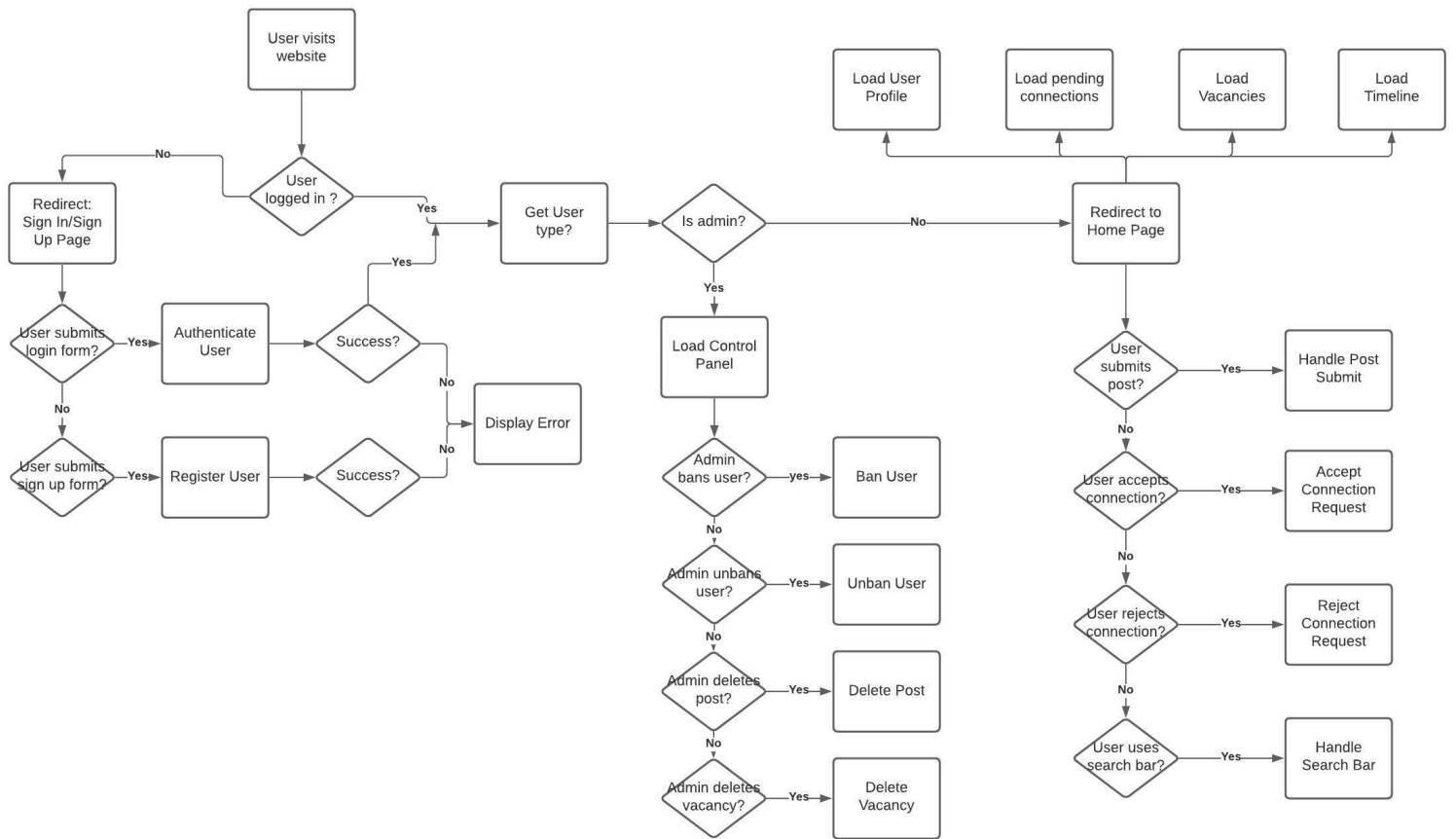
attached_photo	varchar(250)	
date_of_post	date	
time_of_post	timestamp	

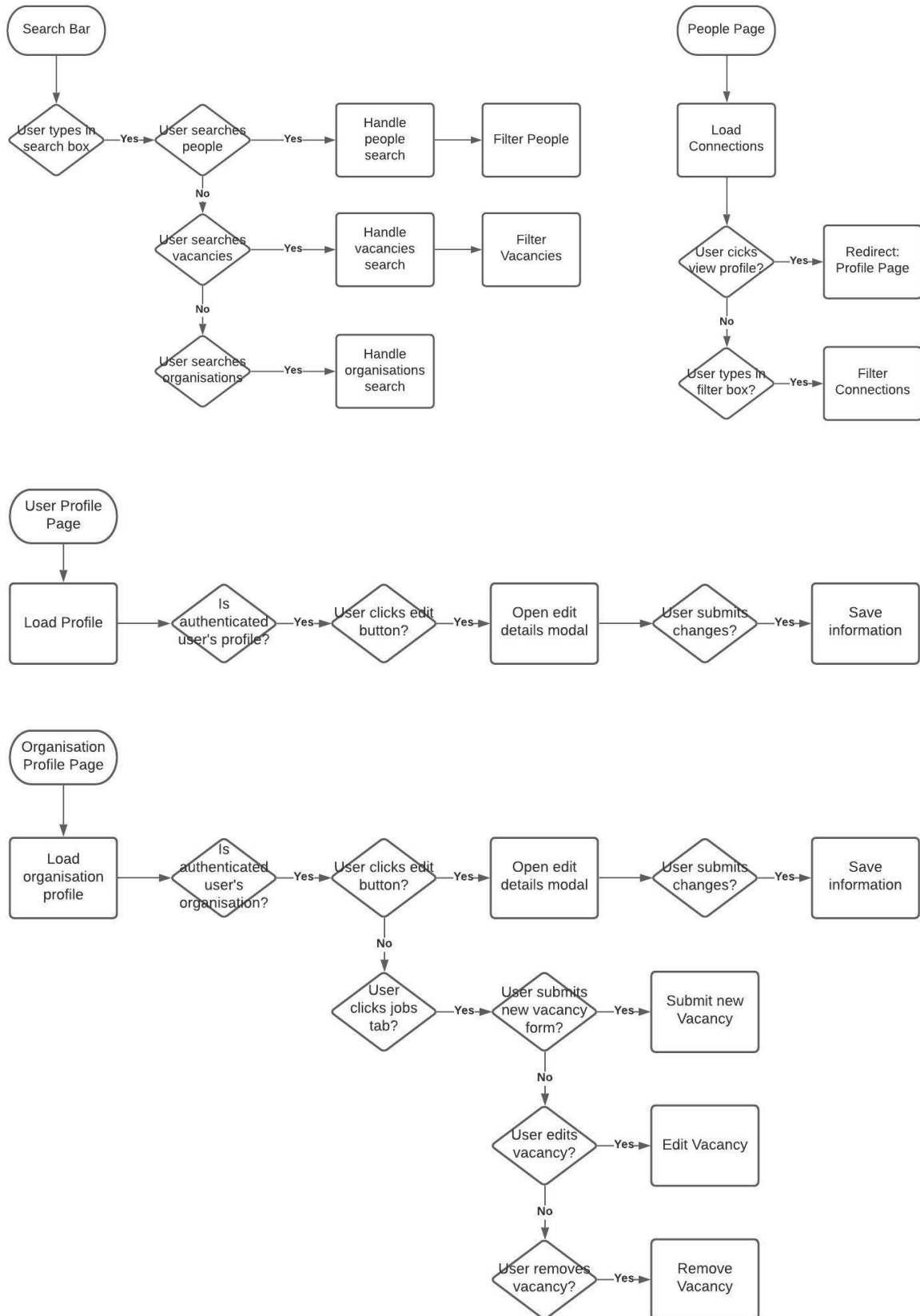
Table 14: banned_users

This table is used to store which users have been banned from using PsychNova for violating PsychNova's terms and conditions.

Field	Type	Key Type
user_id	varchar(5)	PK, FK
reason	varchar(250)	
date_of_ban	date	
date_of_unban	date	

Process Lists:





Process #	1
Title	isUserLoggedIn
Brief Description	Checks if the user is logged in through sessions.
Inputs	-
Detailed Description	Check the users session to see if they are logged in, if they are then redirect them to the home feed, otherwise redirect them to the sign in/sign up page.
Output	True or false

Process #	2
Title	authenticateUser
Brief Description	Attempt to authenticate a user via their email and password.
Inputs	Email, password
Detailed Description	First validate the form, then check if the email and password exists in the users database. If found then authenticate the user by starting a session and redirecting to the home feed, otherwise return an error message saying the email or password is incorrect.
Output	Redirect to home feed or error message

Process #	3
Title	isUserBanned
Brief Description	Check if the user is banned.
Inputs	UserId
Detailed Description	Search for the UserId in the banned_users table in the database, if present return true, else false.
Output	True or false

Process #	4
Title	isUserAdmin
Brief Description	Check is the user is an administrator.
Inputs	userId

Detailed Description	Check the type on the user in the user table to determine whether they are an admin user or a personal user.
Output	True or false

Process #	5
Title	registerUser
Brief Description	Attempt to register a new user to the database.
Inputs	Email, password, firstName, lastName, profession, organisation, dateOfBirth, timeOfBirth, placeOfBirth
Detailed Description	Validate the inputs and attempt to add the user to the database if there doesn't exist a user with the same email.
Output	response.

Process #	6
Title	checkIfEmailExists
Brief Description	Check if email exists
Inputs	email
Detailed Description	Check the user table in the database to see if the email already belongs to a user.
Output	True or false

Process #	7
Title	getPosts
Brief Description	Get the posts to be displayed on the users timeline.
Inputs	userId
Detailed Description	Retrieve data from the posts table in the database, filter these posts based on which were made by the users connection and a to be decided algorithm and display them to the user.
Output	Array of posts

Process #	8
Title	getPendingConnections

Brief Description	Get pending connections of the user.
Inputs	UserId
Detailed Description	Query the pending connections database by selecting the userId to get the latest pending connections for the authenticated user and display this data in the pending connections container.
Output	Array of pending connections

Process #	9
Title	acceptPendingConnections
Brief Description	Accept a pending connection between two users
Inputs	connectionId
Detailed Description	Change the status of the connection with this connectionId from pending to accepted.
Output	response

Process #	10
Title	rejectPendingConnection
Brief Description	Reject a connection request between two users
Inputs	connectionId
Detailed Description	Remove the connection with this connection id from the connections table
Output	response

Process #	11
Title	getUserProfilePicture
Brief Description	Get to the profile picture of a user
Inputs	userId
Detailed Description	Get the path to the profile picture of the user with this userId and display it.
Output	Profile picture

Process #	12
Title	getUserName
Brief Description	Get users name
Inputs	userId
Detailed Description	Get the user with this id's first name and last name from the database.
Output	name

Process #	13
Title	getCurrentEmployment
Brief Description	Get the users current employment
Inputs	userId
Detailed Description	Search the employment_history table and search for the users current employment (end_date is set to present) and display it otherwise display unemployed.
Output	Current employment information

Process #	14
Title	sendPost
Brief Description	Post a users post
Inputs	userId, postContent
Detailed Description	Populate the database with this data so that it will be displayed on the users posts and their connections timeline.
Output	Success or error

Process #	15
Title	showRecommendedVacancies
Brief Description	Show a users recommended vacancies
Inputs	userId
Detailed Description	Search the users skills and the vacancy skills then return the vacancies that have the same skills as the user
Output	Array of vacancies

Process #	16
Title	getUserAstroInfo
Brief Description	Get the users astrological information
Inputs	userId
Detailed Description	Retrieve the users star sign, moon sign and rising sign from the database table user_astrological using the userId
Output	Star sign, moon sign, rising sign

Process #	17
Title	getUserBio
Brief Description	Get the users bio
Inputs	userId
Detailed Description	Search the users table for the user and retrieve their bio and display it on their profile.
Output	bio

Process #	18
Title	getUserPosts
Brief Description	Get the users posts
Inputs	userId
Detailed Description	Get the posts that were made by the user to display it on their profile
Output	Array of posts

Process #	19
Title	getUserProfession
Brief Description	Get the users profession
Inputs	userId
Detailed Description	Query the database user table to get the profession linked to this user id
Output	profession

Process #	20
Title	sendConnectionRequest
Brief Description	Send a connection request
Inputs	userInviter, userInvited
Detailed Description	Add an entry to the database connections table between the two users and set the status to pending
Output	response

Process #	21
Title	cancelConnectionRequest
Brief Description	Cancel a connection request
Inputs	connectionId
Detailed Description	Query the database and delete the entry in the connections table of this connection id in order to cancel the request.
Output	response

Process #	22
Title	getNumberOfConnections
Brief Description	Get the number of connections of a user.
Inputs	userId
Detailed Description	Query the database and count the number of entries into the connections table with this user id as both userInviter and userInvited.
Output	Number of connections

Process #	23
Title	getUserQualifications
Brief Description	Get the users qualifications
Inputs	userId
Detailed Description	Query the database table user_qualifications and search for these qualifications in the qualifications table, output the qualification information on users profile

Output	Array of users qualifications
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Process #	24
Title	getUserSkills
Brief Description	Get a users skills
Inputs	userId
Detailed Description	Query the database table user_skills and search for these skills in the skills table, output the skills information on users profile.
Output	Array of users skills

Process #	25
Title	getUserEmploymentHistory
Brief Description	Get the employment history of a user
Inputs	userId
Detailed Description	Query the database table employemnt_history for this users history and output the information on the users profile.
Output	Array of user's employment history

Process #	26
Title	UpdateBirthInfo
Brief Description	Update a users birth information
Inputs	userId, dateOfBirth, timeOfBirth, placeOfBirth
Detailed Description	Replace the users date of birth in users table with dateOfBirth, and recalculate the users star sign, moon sign and rising sign using timeOfBirth and placeOfBirth.
Output	response

Process #	27
Title	updateFirstName
Brief Description	Update a user's first name
Inputs	userId, firstName
Detailed Description	Replace the users first name in the users table with firstName

Output	response
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Process #	28
Title	updateLastName
Brief Description	Update the last name of a user
Inputs	userId, lastName
Detailed Description	Replace the users last name in the user table with lastName
Output	response

Process #	29
Title	updateUserBio
Brief Description	Update a users bio
Inputs	userId, bio
Detailed Description	Replace the users description entry in the user table with bio
Output	response

Process #	30
Title	updateUserProfilePicture
Brief Description	Update a users profile picture
Inputs	userId, image
Detailed Description	Replace the path to the users profile picture in the user table with a path to this new image.
Output	response

Process #	31
Title	updateProfession
Brief Description	Update a users profession
Inputs	userId, profession
Detailed Description	Replace the users profession entry in the user table with this new profession
Output	response

Process #	32
Title	updateUserQualification
Brief Description	Update a users qualification
Inputs	userId, qualificationId, updatedDateObtained
Detailed Description	Update an entry to the user_qualifications table with this userId, qualificationId with the updated dateObtained
Output	response

Process #	33
Title	createUserQualification
Brief Description	Create a users qualification
Inputs	userId, qualificationId, dateObtained
Detailed Description	Add an entry to the user_qualifications table with this userId, qualificationId and dateObtained, make sure it doesn't already exist first.
Output	response

Process #	34
Title	deleteUserQualification
Brief Description	Delete a user's qualifications
Inputs	userId, u_qualification_id
Detailed Description	Query the user qualification table to find the specified user's qualification and remove it from the database
Output	response

Process #	35
Title	createUserSkill
Brief Description	Create a new skill to a user
Inputs	userId, skillId
Detailed Description	Query the user skills table and add a new entry containing the skillId of the skill they chose to add
Output	response

Process #	36
Title	deleteUserSkill
Brief Description	Delete a skill from a user
Inputs	userId, u_skillid
Detailed Description	Query the user skills table to find the specified user's skill and remove it from the database
Output	response

Process #	37
Title	updateUserEmploymentHistory
Brief Description	Update a user's employment history
Inputs	userId, employmentHistoryId, orgId, startDate, endDate, position
Detailed Description	Query the employment history table in the database to find the specified user's employment history and update it with the values inputted
Output	response

Process #	38
Title	addUserEmploymentHistory
Brief Description	Add a new employment history
Inputs	userId, orgId, startDate, endDate, position
Detailed Description	Add a new employment history entry to the specified user's employment history with the values provided in the input
Output	response

Process #	39
Title	deleteUserEmploymentHistory
Brief Description	Delete an employment history entry
Inputs	userId, employmentHistoryId
Detailed Description	Query the employment history database, and delete the provided employmentHistoryId from the userId given
Output	response

Process #	40
Title	getOrgAstroInfo
Brief Description	Get Astrology Information about an Organisation
Inputs	orgId
Detailed Description	Query the organisation astrological table using the orgId to get the signs associated with the organisation
Output	organisation star sign, moon sign, rising sign

Process #	41
Title	getOrgName
Brief Description	Get an organisation's name
Inputs	orgId
Detailed Description	Query the organisation table in the database with the orgId to get the specified organisation's name
Output	organisations name

Process #	42
Title	getOrgProfilePicture
Brief Description	Get an organisation's profile picture
Inputs	orgId
Detailed Description	Query the organisation table in the database with the orgId to get the specified organisation's profile picture link
Output	organisation profile picture path

Process #	43
Title	getOrgBio
Brief Description	Get an organisation's biography
Inputs	orgId
Detailed Description	Query the organisation table in the database with the orgId to get the specified organisation's description
Output	organisations bio

Process #	44
Title	getOrgVacancies
Brief Description	Get an organisation's vacancies
Inputs	orgId
Detailed Description	Query the organisation table in the database with the orgId to get the organisation's vacancies
Output	Array of the organisations vacancies

Process #	45
Title	getOrgEmployees
Brief Description	Get an organisation's employees
Inputs	orgId
Detailed Description	Query the organisation table in the database with the orgId to get the specified organisation's name
Output	Array of Organisation's Employees

Process #	46
Title	updateOrgDateEstablished
Brief Description	Update an organisation's establishment date
Inputs	orgId, dateEstablished
Detailed Description	Query the organisation table in the database with the orgId and update the organisation's date established with the provided input
Output	orgId, dateEstablished

Process #	47
Title	updateOrgName
Brief Description	Update an organisation's name
Inputs	orgId, name
Detailed Description	Query the organisation table in the database with the orgId and update the organisation's name with the provided input
Output	response

Process #	48
Title	updateOrgBio
Brief Description	Update an organisation's biography
Inputs	orgId, bio
Detailed Description	Query the organisation table in the database with the orgId and update the organisation's description with the provided input
Output	

Process #	49
Title	updateOrgProfilePicture
Brief Description	Update an organisation's profile picture
Inputs	orgId, image
Detailed Description	Query the organisation table in the database with the orgId and update the organisation's profile picture with the provided input
Output	response

Process #	50
Title	getRecentVacancies
Brief Description	Get an organisation's recent vacancies
Inputs	orgId
Detailed Description	Query the organisation table in the database with the orgId to get the organisation's vacancies and filter the vacancies to return their most recent vacancies
Output	array of the organisations vacancies

Process #	51
Title	createNewVacancy
Brief Description	Create a new vacancy
Inputs	orgId, title, description, requiredExperience, skills
Detailed Description	Create a new vacancy for an organisation in the vacancy table by adding their orgId and the other provided inputs
Output	response

Process #	52
Title	updateVacancy
Brief Description	Update an existing vacancy
Inputs	orgId, vacancyId, title, description, requiredExperience, skills
Detailed Description	Query the vacancy table in the database to find the provided vacancy and update it with the inputs given
Output	response

Process #	53
Title	deleteVacancy
Brief Description	Delete a vacancy
Inputs	vacancyId
Detailed Description	Query the vacancy table in the database to find the given vacancy and remove it from the database
Output	reponse

Process #	54
Title	getUserOrgs
Brief Description	Get a user's organisations
Inputs	userId
Detailed Description	Get the organisation's associated with the specified user by querying the employment history table and return the orgId's
Output	Array of orgIds

Process #	55
Title	CreateNewOrg
Brief Description	Create a new organisation
Inputs	userId, name, dateEstablished, bio, profilePicture, email, contactNumber
Detailed Description	Create a new organisation in the organisation table using the given input
Output	response

Process #	56
Title	getUsersConnections
Brief Description	Get a user's connections
Inputs	userId
Detailed Description	Query the connection table and return the connections with the state "accepted"
Output	array of users connections

Process #	57
Title	handleSearch
Brief Description	Handle search input
Inputs	searchType, searchString
Detailed Description	searchType will be the organisation, job or person and the search string is the input the user is looking for, this function which will redirect the user to the appropriate search results page with the search results
Output	search result

Process #	58
Title	getVacancyTitle
Brief Description	Get the title of a vacancy
Inputs	vacancyId
Detailed Description	Query the vacancy table in the database with the vacancyId and return the title of the vacancy specified
Output	title of vacancy

Process #	59
Title	getVacancyDesc
Brief Description	Get the description of a vacancy
Inputs	vacancyId
Detailed Description	Query the vacancy table in the database with the vacancyId and return the description of the vacancy specified
Output	description of the vacancy

Process #	60
Title	getVacancyDateCreated
Brief Description	Get the date created of a vacancy
Inputs	vacancyId
Detailed Description	Query the vacancy table in the database with the vacancyId and return the date created of the vacancy specified
Output	date the vacancy was created

Process #	61
Title	getOrgId
Brief Description	Get the orgId associated with a vacancy
Inputs	vacancyId
Detailed Description	Query the vacancy table in the database with the vacancyId and return the orgId of the vacancy specified
Output	orgId

Process #	62
Title	getVacancyReqExperience
Brief Description	Get the required experience of a vacancy
Inputs	vacancyId
Detailed Description	Query the vacancy table in the database with the vacancyId and return the required experienced of the vacancy specified
Output	required experience

Process #	63
Title	getVacancySkills
Brief Description	Get the skills of a vacancy
Inputs	vacancyId
Detailed Description	Query the vacancy table in the database with the vacancyId and return the skills of the vacancy specified
Output	Array of vacancy skills

Process #	64
Title	banUser
Brief Description	Ban a user from using PsychNova
Inputs	userId, duration
Detailed Description	Add the userId to the ban table in the database and calculate a date when they will be unbanned by using the duration, and input that date into the date_of_unban field in the database
Output	response

Process #	65
Title	unbanUser
Brief Description	Unban a user from using PsychNova
Inputs	userId
Detailed Description	Remove the specified userId from the ban table in the database
Output	response

Process #	66
Title	deletePost
Brief Description	Delete a post
Inputs	postId
Detailed Description	Query the posts table in the database and remove the post with the given postId from the table
Output	response