

Entity-Relationship Diagram (ERD) - Resume Builder Website

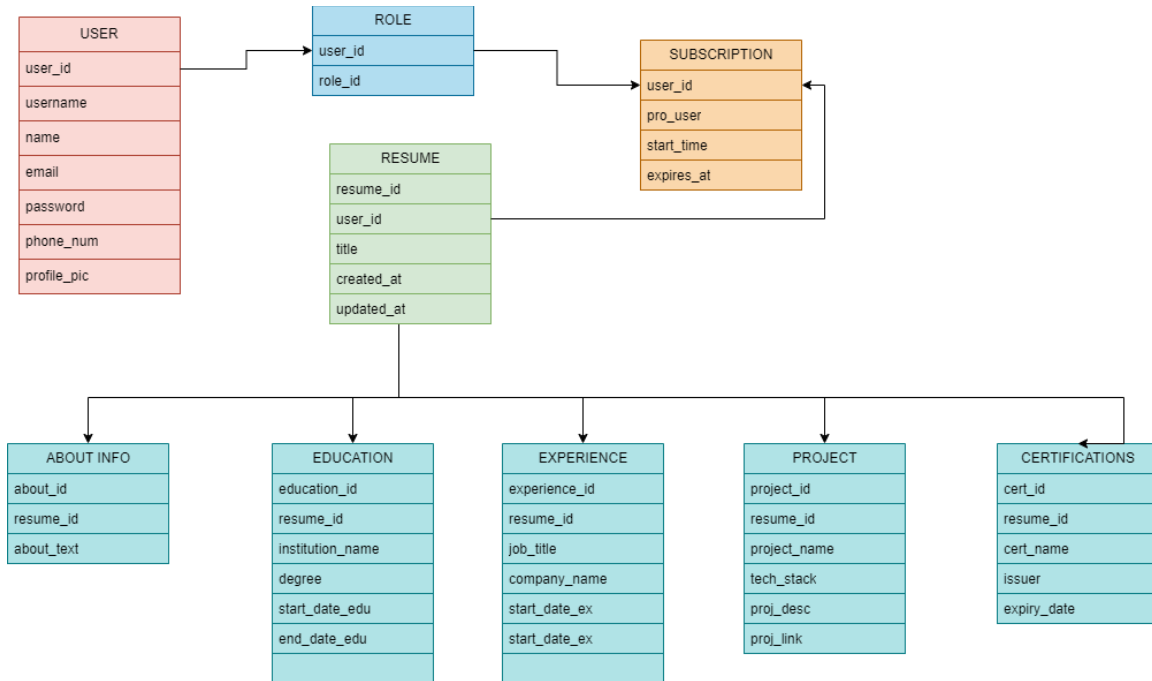


Figure: ERD for Resume Builder Web Application

What is an ERD?

An Entity-Relationship Diagram (ERD) visually represents the structure of a database, showing the entities (tables), their attributes (fields), and relationships among them. It is essential for planning and designing databases in applications such as a resume builder website.

Components of the ERD

1. USER

Stores user information including username, name, email, password, phone number, and profile picture.

2. ROLE

Determines whether a user is an admin, visitor, or normal user. Linked to USER by user_id.

3. SUBSCRIPTION

Tracks whether a user has subscribed to the pro plan, along with the start and expiry times (auto expires after 730 hours).

4. RESUME

Represents a user's resume, linked to the USER table. Contains metadata like title and timestamps.

5. ABOUT INFO

Includes the user's about section for the resume (e.g., biography or personal introduction).

6. EDUCATION

Stores educational history including institution name, degree, and duration.

7. EXPERIENCE

Details the user's work experience such as job title, company, and time period.

8. PROJECT

Captures the projects a user has worked on, with fields for tech stack, description, and project link.

9. CERTIFICATIONS

Holds information about the user's certifications including name, issuer, and expiry date.

How the Resume Builder Website Works

1. A user logs into the website with their credentials.
2. Their role is determined via the ROLE table to check if they are an admin or regular user.
3. Upon accessing the resume builder, they can fill forms corresponding to different resume sections like Education, Projects, Experience, About Info, and Certifications.
4. Each section is stored in its respective table and linked to the resume via resume_id to ensure data isolation.
5. Users can choose to upgrade to a Pro subscription, which is tracked in the SUBSCRIPTION table and expires after 730 hours.
6. All this data is pulled and presented in a formatted resume template that can be exported or shared by the user.

ENTITY AND COLUMN DESCRIPTIONS

1. USER

Column Name Description

user_id	Primary Key. Unique identifier for each user.
username	User's unique login name.
name	Full name of the user.
email	Email address used for communication/login.
password	Encrypted password for login.
phone_num	Contact number of the user.
profile_pic	URL or path to the user's profile picture.

2. ROLE

Column Name Description

user_id	Foreign key from USER. Identifies the user.
role_id	Role assigned to the user (Admin/User/Visitor).

3. SUBSCRIPTION

Column Name Description

user_id	Foreign key from USER. Identifies the user.
pro_user	Boolean. Indicates if the user is a Pro subscriber (true/false).

Column Name	Description
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start_time	Timestamp when the subscription started.
expires_at	Timestamp when the Pro subscription will expire (730 hours from start).

4. RESUME

Column Name	Description
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resume_id	Primary key. Unique ID for the resume.
user_id	Foreign key from USER. Indicates which user owns it.
title	Title or name of the resume.
created_at	Timestamp when the resume was created.
updated_at	Timestamp when the resume was last updated.

5. ABOUT_INFO

Column Name	Description
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about_id	Primary key. Unique ID for the about section.
resume_id	Foreign key from RESUME.
about_text	User-written summary or bio for their resume.

6. EDUCATION

Column Name	Description
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education_id	Primary key. Unique ID for the education entry.
resume_id	Foreign key from RESUME.
institution_name	Name of the school/college/university.

Column Name	Description
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degree	Degree obtained (e.g., B.Tech, M.Sc.).
start_date_edu	Date when the education started.
end_date_edu	Date when the education ended or is expected to end.

7. EXPERIENCE

Column Name	Description
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experience_id	Primary key. Unique ID for the experience entry.
resume_id	Foreign key from RESUME.
job_title	Job title or designation held.
company_name	Name of the company worked at.
start_date_ex	Job start date.
end_date_ex	Job end date (or null if ongoing).

8. PROJECT

Column Name	Description
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project_id	Primary key. Unique ID for the project.
resume_id	Foreign key from RESUME.
project_name	Name of the project.
tech_stack	Technologies used (e.g., React, Node.js).
proj_desc	Description of the project.
proj_link	Link to project (e.g., GitHub, live demo).

9. CERTIFICATIONS

Column Name Description

cert_id	Primary key. Unique ID for the certification.
resume_id	Foreign key from RESUME.
cert_name	Name/title of the certification.
issuer	Organization that issued the certificate.
expiry_date	Expiry date if the certificate is time-limited.
