

# Authentication & JWT Token Specification (MVP)

## Overview

This document defines the authentication structure for the MVP. Authentication is based on JWT with access and refresh tokens. The scope is limited to email/password authentication with optional account verification.

## User Model (Auth-Relevant Fields)

id (UUID)  
email (unique)  
passwordHash  
firstName  
lastName  
avatarId (string, provided by frontend)  
isVerified (boolean)  
createdAt  
updatedAt

## Token Strategy

Access Token:

- JWT
- Expiry: 5 days (configurable up to 7 days)
- Used for all authenticated API requests

Refresh Token:

- Long-lived token
- Used to issue new access tokens
- Rotated on each refresh

## JWT Payload (Access Token)

```
{  
  sub: userId,  
  email: userEmail,  
  iat: issuedAt,  
  exp: expiry  
}
```

## Auth Endpoints

POST /auth/register

Request: { email, password, firstName, lastName, avatarId }

Response: { success: true, userId }

POST /auth/login

Request: { email, password }

Response: { accessToken, refreshToken, user }

POST /auth/refresh

Request: { refreshToken }

Response: { accessToken, refreshToken }

POST /auth/verify (optional)

Request: { userId, code }

Response: { success: true }

## Security Notes

- Passwords must be hashed (bcrypt or argon2)
- Refresh tokens stored hashed in DB
- Refresh tokens invalidated on logout
- Access tokens are stateless
- Backend only stores avatarId

## Out of Scope for MVP

- Social login
- Password reset
- Roles and permissions
- Admin tools