

## 1. User Schema **HIGH PRIORITY**

```
const userSchema = new mongoose.Schema({
  user_id: { type: String, unique: true, required: true },
  email: { type: String, unique: true, required: true },
  password: { type: String, required: true },
  phone: { type: String, unique: true, required: true },
  verified: { type: Boolean, default: false },
  banned: { type: Boolean, default: false },
  profile_image: { type: String, default: null },
  bio: { type: String, default: null },
  crime_reports: [{ type: mongoose.Schema.Types.ObjectId, ref:
'Crime' }],
});
```

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## 2. Crime Report Schema **HIGH PRIORITY**

```
const crimeSchema = new mongoose.Schema({
  crime_id: { type: String, unique: true, required: true },
  title: { type: String, required: true },
  description: { type: String, required: true },
  division: { type: String, required: true },
  district: { type: String, required: true },
  crime_time: { type: Date, required: true },
  images: [{ type: String }], // URLs of uploaded images
  video: { type: String, default: null }, // URL of uploaded
video
  post_time: { type: Date, default: Date.now },
  user_id: { type: mongoose.Schema.Types.ObjectId, ref: 'User',
required: true },
  upvotes: { type: Number, default: 0 },
  downvotes: { type: Number, default: 0 },
  verification_score: { type: Number, default: 0 },
  comments: [{ type: mongoose.Schema.Types.ObjectId, ref:
'Comment' }],
});
```

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### 3. Comment Schema **HIGH PRIORITY**

```
const commentSchema = new mongoose.Schema({
  comment_id: { type: String, unique: true, required: true },
  user_id: { type: mongoose.Schema.Types.ObjectId, ref: 'User',
required: true },
  crime_id: { type: mongoose.Schema.Types.ObjectId, ref:
'Crime', required: true },
  comment: { type: String, required: true },
  proof_image: { type: String, default: null },
  proof_video: { type: String, default: null },
  created_at: { type: Date, default: Date.now },
});
```

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### 4. Heatmap Data Schema

```
const heatmapSchema = new mongoose.Schema({
  location: { type: String, required: true },
  count: { type: Number, required: true },
  date_range: { type: String, required: true },
});
```

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### 5. Leaderboard Schema

```
const leaderboardSchema = new mongoose.Schema({
  user_id: { type: mongoose.Schema.Types.ObjectId, ref: 'User',
required: true },
  username: { type: String, required: true },
  score: { type: Number, required: true },
  type: { type: String, enum: ['top_contributors',
'most_helpful_comments'], required: true },
});
```

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## 6. Division and District Schema **NOT NECESSARY NOW**

```
const divisionDistrictSchema = new mongoose.Schema({
  division_name: { type: String, required: true },
  districts: [{ type: String, required: true }],
});
```

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## 7. OTP Schema **HIGH PRIORITY**

```
const otpSchema = new mongoose.Schema({
  phone_number: { type: String, required: true },
  otp: { type: String, required: true },
  expires_at: { type: Date, required: true },
});
```

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## 8. Token Schema **HIGH PRIORITY**

```
const tokenSchema = new mongoose.Schema({
  user_id: { type: mongoose.Schema.Types.ObjectId, ref: 'User',
required: true },
  access_token: { type: String, required: true },
  refresh_token: { type: String, required: true },
  expires_at: { type: Date, required: true },
});
```

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## 9. AI Description Schema **HIGH PRIORITY**

```
const aiDescriptionSchema = new mongoose.Schema({
  image_url: { type: String, required: true },
  description: { type: String, required: true },
  generated_at: { type: Date, default: Date.now },
});
```

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## 10. Admin Action Schema

```
const adminActionSchema = new mongoose.Schema({
  admin_id: { type: mongoose.Schema.Types.ObjectId, ref:
'User', required: true },
  action: { type: String, enum: ['ban_user'], required: true },
  target_user_id: { type: mongoose.Schema.Types.ObjectId, ref:
'User', required: true },
  action_taken_at: { type: Date, default: Date.now },
});
```

## Summary of Schemas

1. User Schema - For user registration, login, and profile management.
2. Crime Report Schema - For storing crime reports.
3. Comment Schema - For storing comments on crime reports.
4. Heatmap Data Schema - For storing heatmap data.
5. Leaderboard Schema - For storing leaderboard rankings.
6. Division and District Schema - For storing geographical divisions and districts.
7. OTP Schema - For storing OTPs for verification.
8. Token Schema - For storing access and refresh tokens.
9. AI Description Schema - For storing AI-generated descriptions.
10. Admin Action Schema - For logging admin actions.