OllamaNet Domain Class Diagram

Authentication Domain

«entity» «aggregate root» User
- +Id: string
- +Username: string
- +Email: string
- +PasswordHash: string
- +EmailConfirmed: bool
- +PhoneNumber: string
- +PhoneNumberConfirmed: bool
- +TwoFactorEnabled: bool
- +LockoutEnd: DateTime?
- +LockoutEnabled: bool
- +AccessFailedCount: int
- +CreatedAt: DateTime
- +UpdatedAt: DateTime
- +LastLoginAt: DateTime?
- +HasPermission(permission): bool
- +AddToRole(role): void
- +RemoveFromRole(role): void

«entity» Role
- +Id: string
- +Name: string
- +NormalizedName: string
- +Description: string
- +AddPermission(permission): void
- +RemovePermission(permission): void

«entity» UserLogin
- +LoginProvider: string
- +ProviderKey: string
- +ProviderDisplayName: string
- +UserId: string

«value object» RefreshToken
- +Token: string
- +UserId: string
- +ExpiryDate: DateTime
- +CreatedByIp: string
- +RevokedAt: DateTime?
- +ReplacedByToken: string?
- +ReasonRevoked: string?
- +IsExpired: bool
- +IsActive: bool

«entity» Permission
- +Id: string
- +Name: string
- +Resource: string
- +Action: string
- +Description: string

Conversation Domain

«entity» «aggregate root» Note
- +Id: string
- +Content: string
- +UserId: string
- +ConversationId: string?
- +CreatedAt: DateTime
- +UpdatedAt: DateTime
- +Update(content): void

«E» MessageRole
- +User
- +Assistant
- +System

«entity» «aggregate root» Conversation
- +Id: string
- +Title: string
- +UserId: string
- +ModelId: string
- +CreatedAt: DateTime
- +UpdatedAt: DateTime
- +FolderId: string?
- +IsArchived: bool
- +LastMessageAt: DateTime?
- +AddMessage(message): void
- +UpdateTitle(title): void
- +Archive(): void
- +Restore(): void
- +MoveToFolder(folderId): void

«entity» Message
- +Id: string
- +ConversationId: string
- +Role: MessageRole
- +Content: string
- +CreatedAt: DateTime
- +TokenCount: int
- +Metadata: Dictionary<string, object>
- +AddFeedback(feedback): void

«entity» «aggregate root» Folder
- +Id: string
- +Name: string
- +UserId: string
- +ParentId: string?
- +CreatedAt: DateTime
- +UpdatedAt: DateTime
- +Rename(name): void
- +MoveTo(parentId): void

«entity» Feedback
- +Id: string
- +MessageId: string
- +Rating: int
- +Comment: string
- +CreatedAt: DateTime
- +UserId: string

Document Domain

«E» DocumentStatus
- +Uploaded
- +Processing
- +Indexed
- +Failed

«entity» «aggregate root» Document
- +Id: string
- +Name: string
- +ContentType: string
- +Size: long
- +UserId: string
- +UploadedAt: DateTime
- +ProcessedAt: DateTime?
- +Status: DocumentStatus
- +StoragePath: string
- +AddChunk(chunk): void
- +UpdateStatus(status): void

«entity» DocumentChunk
- +Id: string
- +DocumentId: string
- +Content: string
- +ChunkIndex: int
- +Embedding: float[]
- +EmbeddingModelId: string
- +UpdateEmbedding(embedding): void

«value object» DocumentMetadata
- +DocumentId: string
- +Author: string?
- +CreatedAt: DateTime?
- +ModifiedAt: DateTime?
- +PageCount: int?
- +Title: string?
- +Keywords: string[]
- +Custom: Dictionary<string, object>

Model Administration Domain

«E» ModelStatus
- +Available
- +Unavailable
- +Downloading
- +Failed

«entity» «aggregate root» AIModel
- +Id: string
- +Name: string
- +Description: string
- +Status: ModelStatus
- +Size: long
- +ContextLength: int
- +ParameterCount: long
- +QuantizationLevel: string
- +BaseModel: string
- +ModelFormat: string
- +CreatedAt: DateTime
- +UpdatedAt: DateTime
- +UpdateStatus(status): void
- +UpdateConfiguration(config): void

«value object» AIModelTag
- +ModelId: string
- +TagId: string

«entity» ModelConfiguration
- +Id: string
- +ModelId: string
- +DefaultTemperature: float
- +DefaultTopP: float
- +DefaultTopK: int
- +MaxOutputTokens: int
- +DefaultSystemPrompt: string
- +StopSequences: string[]
- +ValidateParameters(): bool

«entity» Tag
- +Id: string
- +Name: string
- +Category: string
- +Description: string

Inference Domain

«value object» InferenceRequest
- +Model: string
- +Prompt: string
- +SystemPrompt: string?
- +Temperature: float
- +TopP: float
- +TopK: int
- +MaxTokens: int
- +StopSequences: string[]
- +Stream: bool
- +UserId: string?
- +Validate(): bool

«value object» InferenceResponse
- +Content: string
- +Model: string
- +PromptTokenCount: int
- +CompletionTokenCount: int
- +FinishReason: string
- +ElapsedTimeMs: long

«value object» ModelInfo
- +Id: string
- +Name: string
- +Description: string?
- +ContextLength: int
- +ParameterCount: long

«value object» ServiceInfo
- +Url: string
- +Status: ServiceStatus
- +AvailableModels: ModelInfo[]
- +LastUpdated: DateTime

«E» ServiceStatus
- +Online
- +Offline
- +Degraded

Relationship labels: many, 1, 0..1, references

Complete domain class diagram for OllamaNet platform showing:

- Domain entities, value objects, and aggregates
- Entity attributes and operations
- Entity relationships and cardinality
- Domain-specific enumerations

Color coding by domain:
- Authentication Domain (AuthService)
- Model Administration Domain (AdminService/ExploreService)
- Conversation Domain (ConversationService)
- Document Domain (ConversationService)
- Inference Domain (InferenceService)

Relationship types:
- Composition: solid line with filled diamond
- Association: solid line
- Aggregation: solid line with empty diamond