Question Service Specification

Infrastructure

.Net Web API (with use controllers)
Postgres DB
Entity Framework ORM
Service Bus - RabbitMQ
Identity Provider - KeyCloak

Nuget Packages

Name	Version used
Aspire.Keycloak.Authentication	9.3.1-preview.1.25305.6
Aspire.Npgsql.EntityFrameworkCore.PostgreSQL	9.3.1
Microsoft.AspNetCore.OpenApi	9.0.7
Microsoft.EntityFrameworkCore.Design	9.0.7
WolverineFx.RabbitMQ	4.7.0

External (User)

CreateQuestion - Creates a Question. Emits **QuestionCreated**
UpdateQuestion - Updates a Question. Emits **QuestionUpdated**
DeleteQuestion - Deletes a Question. Emits **AuctionDeleted**
CreateAnswer - Creates an answer to a Question. Emits **UpdatedAnswerCount**
DeleteAnswer - Deletes an answer to a Question. Emits **UpdatedAnswerCount**
AcceptAnswer - Accepts an answer for a Question. Emits **AnswerAccepted**

Queries handled

GetQuestions - Gets a list of questions sorted by Newest Question First. Returns List of Questions**
GetQuestionById - Gets question by id. Returns **Question** with **Answers**
GetTags - Gets all tags sorted alphabetically

Events emitted

QuestionCreated - When the question is created, in response to **CreateQuestion API endpoint**
QuestionUpdated - When the question is updated, in response to **UpdateQuestion API endpoint**
QuestionDeleted - When the question is deleted, in response to **DeleteQuestion API endpoint**
AnswerCountUpdated - When an answer is posted, in response to **CreateAnswer and Delete answer API endpoint**
AnswerAccepted - When an answer is accepted, in response to **AcceptAnswer API endpoint**

Events consumed

VoteCreated - When a vote has been placed in the VoteService

API Endpoints

Method	Route	Purpose	Auth?	Returns
POST	/questions	Create question	Auth	201 with **Question**
PUT	/questions/:id	Update question	Auth	204 no content
DELETE	/questions/:id	Delete question	Auth	204 no content

Method	Route	Purpose	Auth?	Returns
GET	/questions	Get questions	Anon	200 with **Question[]**
GET	/questions/:id	Get question by id	Anon	200 with **Question**
GET	/tags	Get tags list	Anon	200 with Tag[]
POST	/questions/:questionId/answers	Create answer for question	Auth	201 with **Answer**
PUT	/questions/:questionId/answers/:answerId	Update answer	Auth	204 no content
DELETE	/questions/:questionId/answers/:answerId	Delete answer	Auth	204 no content
POST	/questions/:questionId/answers/:answerId/accept	Set answer as accepted answer	Auth	204 no content

Models

Question.cs

Property Name	Property Type	Default Value	Remarks
Id	string		MaxLength=36
Title	string		MaxLength=300
Content	string		MaxLength=5000
AskerId	string		MaxLength=36
AskerDisplayName	string		MaxLength=300
CreatedAt	DateTime	DateTime.UtcNow	
UpdatedAt	DateTime?		
UpdatedAt	DateTime	DateTime.UtcNow	
ViewCount	int	0	
TagSlugs	string[]	[]	
HasAcceptedAnswer	boolean	false	
Votes	int	0	
AnswerCount	int	0	
Answers	Answer[]	[]	Related to Question

Tag.cs

Property Name	Property Type	Default Value	Remarks
Id	string		MaxLength=36
Name	string		MaxLength=50
Slug	string		MaxLength=50
Description	string		MaxLength=1000

Answer.cs

Property Name	Property Type	Default Value	Remarks
Id	string		MaxLength=36
Content	string		MaxLength=50
UserId	string		MaxLength=50
UserDisplayName	string		MaxLength=1000
CreatedAt	DateTime	DateTime.UtcNow	

Property Name	Property Type	Default Value	Remarks
UpdatedAt?	DateTime		
Accepted	boolean	false	
QuestionId	string		MaxLength=36, Nav property
Question	Question	null!	Nav property, JsonIgnore

DTOs

CreateQuestionDto.cs

Property Name	Property Type	Validators
Title	string	Required
Content	string	Required
Tags	DateTime	Required, Min(1), Max(5)

CreateAnswerDto.cs

Property Name	Property Type	Validators
Content	string	Required

Event Emitted Types

QuestionCreated

Property Name	Property Type
Id	string
Title	string
Content	string
Created	DateTime
Tags	string[]

QuestionUpdated

Property Name	Property Type
QuestionId	string
Title	string
Content	string
Tags	string[]

QuestionDeleted

Property Name	Property Type
QuestionId	string

UpdatedAnswerCount

Property Name	Property Type
QuestionId	string

Property Name	Property Type
AnswerCount	int

AnswerAccepted

Property Name	Property Type
QuestionId	string