

# Namespace AttendanceSystem.Api

## Classes

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Extension methods to enable registration of the custom [IFunctionExecutor](#)<sup>↗</sup> implementation generated for the current worker.

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Extension methods to enable registration of the custom [IFunctionMetadataProvider](#)<sup>↗</sup> implementation generated for the current worker.


# Class AuthenticationService

Namespace: [AttendanceSystem.Api](#)

Assembly: AttendanceSystem.Api.dll

```
public class AuthenticationService
```

## Inheritance

[object](#)  ← AuthenticationService

## Inherited Members

[object.Equals\(object\)](#)  , [object.Equals\(object, object\)](#)  , [object.GetHashCode\(\)](#)  ,  
[object.GetType\(\)](#)  , [object.MemberwiseClone\(\)](#)  , [object.ReferenceEquals\(object, object\)](#)  ,  
[object.ToString\(\)](#) 

## Constructors

AuthenticationService(ILogger<AuthenticationService>, JsonWebTokenHandler)

```
public AuthenticationService(ILogger<AuthenticationService> logger,  
    JsonWebTokenHandler jwtHandler)
```

## Parameters

logger [ILogger](#)  <[AuthenticationService](#)>

jwtHandler [JsonWebTokenHandler](#) 

## Methods

GetRoles(TokenValidationResult)

```
public List<string> GetRoles(TokenValidationResult jwt)
```

## Parameters

jwt [TokenValidationResult](#)

## Returns

[List](#) <[string](#)>

## IsAuthenticated(TokenValidationResult, IEnumerable<string>)

```
public bool IsAuthenticated(TokenValidationResult jwt, IEnumerable<string> requiredRoles)
```

## Parameters

jwt [TokenValidationResult](#)

requiredRoles [IEnumerable](#) <[string](#)>

## Returns

[bool](#)

# Class FunctionExecutorHostBuilderExtensions

Namespace: [AttendanceSystem.Api](#)

Assembly: AttendanceSystem.Api.dll

Extension methods to enable registration of the custom [IFunctionExecutor](#)<sup>↗</sup> implementation generated for the current worker.

```
public static class FunctionExecutorHostBuilderExtensions
```

## Inheritance

[object](#)<sup>↗</sup> ← [FunctionExecutorHostBuilderExtensions](#)

## Inherited Members

[object.Equals\(object\)](#)<sup>↗</sup> , [object.Equals\(object, object\)](#)<sup>↗</sup> , [object.GetHashCode\(\)](#)<sup>↗</sup> , [object.GetType\(\)](#)<sup>↗</sup> , [object.MemberwiseClone\(\)](#)<sup>↗</sup> , [object.ReferenceEquals\(object, object\)](#)<sup>↗</sup> , [object.ToString\(\)](#)<sup>↗</sup>

## Methods

### ConfigureGeneratedFunctionExecutor(IHostBuilder)

Configures an optimized function executor to the invocation pipeline.

```
public static IHostBuilder ConfigureGeneratedFunctionExecutor(this  
IHostBuilder builder)
```

## Parameters

**builder** [IHostBuilder](#)<sup>↗</sup>

## Returns

[IHostBuilder](#)<sup>↗</sup>

# Class Roles

Namespace: [AttendanceSystem.Api](#)

Assembly: AttendanceSystem.Api.dll

```
public static class Roles
```

## Inheritance

[object](#)  ← Roles

## Inherited Members

[object.Equals\(object\)](#)  , [object.Equals\(object, object\)](#)  , [object.GetHashCode\(\)](#)  ,  
[object.GetType\(\)](#)  , [object.MemberwiseClone\(\)](#)  , [object.ReferenceEquals\(object, object\)](#)  ,  
[object.ToString\(\)](#) 

## Fields

### Admin

```
public const string Admin = "role.admin"
```

### Field Value

[string](#) 

### AllowAll

```
public static string[] AllowAll
```


### Field Value

[string](#)  []

### AllowElevated

```
public static string[] AllowElevated
```

Field Value

[string](#) []

## Student

```
public const string Student = "role.student"
```

Field Value

[string](#) 

## Teacher

```
public const string Teacher = "role.teacher"
```

Field Value

[string](#) 

# Class Services

Namespace: [AttendanceSystem.Api](#)








Assembly: AttendanceSystem.Api.dll

```
public static class Services
```

## Inheritance

[object](#)  ← Services

## Inherited Members

[object.Equals\(object\)](#)  , [object.Equals\(object, object\)](#)  , [object.GetHashCode\(\)](#)  ,  
[object.GetType\(\)](#)  , [object.MemberwiseClone\(\)](#)  , [object.ReferenceEquals\(object, object\)](#)  ,  
[object.ToString\(\)](#) 

## Methods

### AddServices(IServiceCollection)

```
public static IServiceCollection AddServices(this IServiceCollection sp)
```

## Parameters

**sp** [IServiceCollection](#) 

## Returns

[IServiceCollection](#) 

# Class SwaggerSetup

Namespace: [AttendanceSystem.Api](#)








Assembly: AttendanceSystem.Api.dll

```
public static class SwaggerSetup
```

## Inheritance

[object](#)  ← SwaggerSetup

## Inherited Members

[object.Equals\(object\)](#)  , [object.Equals\(object, object\)](#)  , [object.GetHashCode\(\)](#)  , [object.GetType\(\)](#)  , [object.MemberwiseClone\(\)](#)  , [object.ReferenceEquals\(object, object\)](#)  , [object.ToString\(\)](#) 

## Methods

### AddSwagger(IServiceCollection)

```
public static IServiceCollection AddSwagger(this IServiceCollection services)
```

## Parameters

**services** [IServiceCollection](#) 

## Returns

[IServiceCollection](#) 



# Class WorkerHostBuilderFunctionMetadataProviderExtension

Namespace: [AttendanceSystem.Api](#)

Assembly: AttendanceSystem.Api.dll

Extension methods to enable registration of the custom [IFunctionMetadataProvider](#) implementation generated for the current worker.

```
public static class WorkerHostBuilderFunctionMetadataProviderExtension
```

## Inheritance

[object](#) ← WorkerHostBuilderFunctionMetadataProviderExtension

## Inherited Members

[object.Equals\(object\)](#), [object.Equals\(object, object\)](#), [object.GetHashCode\(\)](#), [object.GetType\(\)](#), [object.MemberwiseClone\(\)](#), [object.ReferenceEquals\(object, object\)](#), [object.ToString\(\)](#)

## Methods

### ConfigureGeneratedFunctionMetadataProvider(IHost Builder)

Adds the GeneratedFunctionMetadataProvider to the service collection. During initialization, the worker will return generated function metadata instead of relying on the Azure Functions host for function indexing.

```
public static IHostBuilder ConfigureGeneratedFunctionMetadataProvider(this  
IHostBuilder builder)
```

## Parameters

**builder** [IHostBuilder](#)

## Returns



# Namespace AttendanceSystem.Api. Contracts

## Classes

[AttendanceRecordDto](#)

[CreateCourseContract](#)

[CreateSessionContract](#)

[CreateUserContract](#)

[EnrollUserContract](#)

[ExtendedAttendanceRecord](#)

[GetAttendanceListContract](#)

[SessionDTO](#)

[UpdateAttendanceContractItem](#)

## Enums

[UserType](#)


# Class AttendanceRecordDto

Namespace: [AttendanceSystem.Api.Contracts](#)

Assembly: AttendanceSystem.Api.dll

```
public record AttendanceRecordDto : IEquatable<AttendanceRecordDto>
```








## Inheritance

[object](#)  ← AttendanceRecordDto

## Implements

[IEquatable](#)  <[AttendanceRecordDto](#)>

## Inherited Members

[object.Equals\(object\)](#)  , [object.Equals\(object, object\)](#)  , [object.GetHashCode\(\)](#)  ,  
[object.GetType\(\)](#)  , [object.MemberwiseClone\(\)](#)  , [object.ReferenceEquals\(object, object\)](#)  ,  
[object.ToString\(\)](#) 

## Properties

### Status

```
public AttendanceSubmission Status { get; set; }
```

Property Value

[AttendanceSubmission](#)

### StudentId

```
public string StudentId { get; set; }
```

Property Value

[string](#) 

# StudentName

```
public string StudentName { get; set; }
```

Property Value

[string](#)

# TeacherStatus

```
public AttendanceSubmission TeacherStatus { get; set; }
```

Property Value

[AttendanceSubmission](#)

# Class CreateCourseContract

Namespace: [AttendanceSystem.Api.Contracts](#)

Assembly: AttendanceSystem.Api.dll

```
public class CreateCourseContract
```

## Inheritance

[object](#)  ← CreateCourseContract

## Inherited Members

[object.Equals\(object\)](#) , [object.Equals\(object, object\)](#) , [object.GetHashCode\(\)](#) ,  
[object.GetType\(\)](#) , [object.MemberwiseClone\(\)](#) , [object.ReferenceEquals\(object, object\)](#) ,  
[object.ToString\(\)](#) 

## Properties

### DepartmentId

```
public required string DepartmentId { get; set; }
```

Property Value

[string](#) 

### Id

```
public required string Id { get; set; }
```

Property Value

[string](#) 

### Name

```
public required string Name { get; set; }
```

Property Value

[string](#)

## TeacherIds

```
public required List<string> TeacherIds { get; set; }
```

Property Value

[List](#) <[string](#)>

# Class CreateSessionContract

Namespace: [AttendanceSystem.Api.Contracts](#)

Assembly: AttendanceSystem.Api.dll

```
public class CreateSessionContract
```

## Inheritance

[object](#)  ← CreateSessionContract

## Inherited Members

[object.Equals\(object\)](#)  , [object.Equals\(object, object\)](#)  , [object.GetHashCode\(\)](#)  ,  
[object.GetType\(\)](#)  , [object.MemberwiseClone\(\)](#)  , [object.ReferenceEquals\(object, object\)](#)  ,  
[object.ToString\(\)](#) 

## Properties

### EndDate

```
public required DateTime EndDate { get; set; }
```

Property Value

[DateTime](#) 

### Participants

```
public required List<string> Participants { get; set; }
```

Property Value

[List](#)  <[string](#)  >

### StartDate



```
public required DateTime StartDate { get; set; }
```

Property Value

[DateTime](#)


# Class CreateUserContract

Namespace: [AttendanceSystem.Api.Contracts](#)

Assembly: AttendanceSystem.Api.dll

```
public class CreateUserContract
```

## Inheritance

[object](#)  ← CreateUserContract

## Inherited Members

[object.Equals\(object\)](#)  , [object.Equals\(object, object\)](#)  , [object.GetHashCode\(\)](#)  ,  
[object.GetType\(\)](#)  , [object.MemberwiseClone\(\)](#)  , [object.ReferenceEquals\(object, object\)](#)  ,  
[object.ToString\(\)](#) 

## Properties

### Email

```
public required string Email { get; set; }
```

### Property Value

[string](#) 

### Id

```
public required string Id { get; set; }
```

### Property Value

[string](#) 

### Name

```
public required string Name { get; set; }
```

Property Value

[string](#)

## Type

```
public required UserType Type { get; set; }
```

Property Value

[UserType](#)


# Class EnrollUserContract

Namespace: [AttendanceSystem.Api.Contracts](#)








Assembly: AttendanceSystem.Api.dll

```
public class EnrollUserContract
```

## Inheritance

[object](#)  ← EnrollUserContract

## Inherited Members

[object.Equals\(object\)](#)  , [object.Equals\(object, object\)](#)  , [object.GetHashCode\(\)](#)  ,  
[object.GetType\(\)](#)  , [object.MemberwiseClone\(\)](#)  , [object.ReferenceEquals\(object, object\)](#)  ,  
[object.ToString\(\)](#) 

## Properties

### UserId

```
public required string UserId { get; set; }
```

### Property Value

[string](#) 

# Class ExtendedAttendanceRecord

Namespace: [AttendanceSystem.Api.Contracts](#)

Assembly: AttendanceSystem.Api.dll

```
public record ExtendedAttendanceRecord : AttendanceRecord,  
    IEquatable<AttendanceRecord>, IEquatable<ExtendedAttendanceRecord>
```








## Inheritance

[object](#)  ← [AttendanceRecord](#) ← ExtendedAttendanceRecord

## Implements

[IEquatable](#)  <[AttendanceRecord](#)>, [IEquatable](#)  <[ExtendedAttendanceRecord](#)>

## Inherited Members

[AttendanceRecord.SessionId](#) , [AttendanceRecord.StudentId](#) ,  
[AttendanceRecord.StudentSubmission](#) , [AttendanceRecord.TeacherSubmission](#) ,  
[object.Equals\(object\)](#)  , [object.Equals\(object, object\)](#)  , [object.GetHashCode\(\)](#)  ,  
[object.GetType\(\)](#)  , [object.MemberwiseClone\(\)](#)  , [object.ReferenceEquals\(object, object\)](#)  ,  
[object.ToString\(\)](#) 

## Constructors

### ExtendedAttendanceRecord()

```
public ExtendedAttendanceRecord()
```

### ExtendedAttendanceRecord(AttendanceRecord)

```
public ExtendedAttendanceRecord(AttendanceRecord attendanceRecord)
```

## Parameters

*attendanceRecord* [AttendanceRecord](#)

# Properties

## StudentName

```
public string StudentName { get; set; }
```

## Property Value

[string](#)


# Class GetAttendanceListContract

Namespace: [AttendanceSystem.Api.Contracts](#)

Assembly: AttendanceSystem.Api.dll

```
public class GetAttendanceListContract
```

## Inheritance

[object](#)  ← GetAttendanceListContract

## Inherited Members

[object.Equals\(object\)](#)  , [object.Equals\(object, object\)](#)  , [object.GetHashCode\(\)](#)  ,  
[object.GetType\(\)](#)  , [object.MemberwiseClone\(\)](#)  , [object.ReferenceEquals\(object, object\)](#)  ,  
[object.ToString\(\)](#) 

## Properties

### Course

```
public required Course Course { get; set; }
```

Property Value

[Course](#)

### EndTime

```
public required DateTime EndTime { get; set; }
```

Property Value

[DateTime](#) 

### Id

```
public Guid Id { get; init; }
```

Property Value

[Guid](#)

## Register

```
public required ICollection<ExtendedAttendanceRecord> Register { get; set; }
```

Property Value

[ICollection](#) <[ExtendedAttendanceRecord](#)>

## StartTime

```
public required DateTime StartTime { get; set; }
```

Property Value

[DateTime](#)



# Class SessionDTO

Namespace: [AttendanceSystem.Api.Contracts](#)

Assembly: AttendanceSystem.Api.dll

```
public record SessionDTO : IEquatable<SessionDTO>
```








## Inheritance

[object](#)  ← SessionDTO

## Implements

[IEquatable](#)  <[SessionDTO](#)>

## Inherited Members

[object.Equals\(object\)](#) , [object.Equals\(object, object\)](#) , [object.GetHashCode\(\)](#) ,  
[object.GetType\(\)](#) , [object.MemberwiseClone\(\)](#) , [object.ReferenceEquals\(object, object\)](#) ,  
[object.ToString\(\)](#) 

## Properties

### Attendance

```
public AttendanceRecordDto? Attendance { get; set; }
```

Property Value

[AttendanceRecordDto](#)

### CourseId

```
public required string CourseId { get; set; }
```

Property Value

[string](#) 

## CourseName

```
public required string CourseName { get; set; }
```

Property Value

[string](#)

## EndDate

```
public required DateTime EndDate { get; set; }
```

Property Value

[DateTime](#)

## Id

```
public required Guid Id { get; set; }
```

Property Value

[Guid](#)

## StartDate

```
public required DateTime StartDate { get; set; }
```

Property Value

[DateTime](#)

# Class UpdateAttendanceContractItem

Namespace: [AttendanceSystem.Api.Contracts](#)








Assembly: AttendanceSystem.Api.dll

```
public class UpdateAttendanceContractItem
```

## Inheritance

[object](#)  ← UpdateAttendanceContractItem

## Inherited Members

[object.Equals\(object\)](#)  , [object.Equals\(object, object\)](#)  , [object.GetHashCode\(\)](#)  ,  
[object.GetType\(\)](#)  , [object.MemberwiseClone\(\)](#)  , [object.ReferenceEquals\(object, object\)](#)  ,  
[object.ToString\(\)](#) 

## Properties

### Kind

```
[JsonConverter(typeof(JsonStringEnumConverter<AttendanceKind>))]  
public required AttendanceKind Kind { get; init; }
```

### Property Value

[AttendanceKind](#)

### UserId

```
public string? UserId { get; init; }
```

### Property Value

[string](#) 

# Enum UserType

Namespace: [AttendanceSystem.Api.Contracts](#)

Assembly: AttendanceSystem.Api.dll

```
[JsonConverter(typeof(JsonStringEnumConverter<UserType>))]  
public enum UserType
```

## Fields

Administrator = 2

Student = 0

Teacher = 1

# Namespace AttendanceSystem.Api. Controllers

## Classes

[BaseController](#)

[CoursesController](#)

[FeedController](#)

[SessionsController](#)

[SwaggerController](#)

Represents the controller that serves the swagger documents

[UsersController](#)

# Class BaseController

Namespace: [AttendanceSystem.Api.Controllers](#)

Assembly: AttendanceSystem.Api.dll

```
public class BaseController
```








## Inheritance

[object](#)  ← BaseController

## Derived

[CoursesController](#), [FeedController](#), [SessionsController](#), [UsersController](#)

## Inherited Members

[object.Equals\(object\)](#)  , [object.Equals\(object, object\)](#)  , [object.GetHashCode\(\)](#)  ,  
[object.GetType\(\)](#)  , [object.MemberwiseClone\(\)](#)  , [object.ReferenceEquals\(object, object\)](#)  ,  
[object.ToString\(\)](#) 

## Constructors

### BaseController(AuthenticationService, UserService)

```
public BaseController(AuthenticationService authenticationService,  
    UserService userService)
```

## Parameters

*authenticationService* [AuthenticationService](#)

*userService* [UserService](#)

## Fields

### \_userService

```
protected readonly UserService _userService
```

Field Value

[UserService](#)

## Methods

### AssertAuthentication(FunctionContext, IEnumerable<string>)

```
protected Task AssertAuthentication(FunctionContext context,
    IEnumerable<string> allowedRoles)
```

Parameters

context [FunctionContext](#)

allowedRoles [IEnumerable](#) <[string](#)>

Returns

[Task](#)

### GetUser(FunctionContext)

```
protected Task<User> GetUser(FunctionContext context)
```

Parameters

context [FunctionContext](#)

Returns

[Task](#) <[User](#)>

### GetUserId(FunctionContext)

```
protected string GetUserId(FunctionContext context)
```

## Parameters

context [FunctionContext](#)

## Returns

[string](#)

# GetUserRoles(FunctionContext)

```
protected List<string> GetUserRoles(FunctionContext context)
```

## Parameters

context [FunctionContext](#)

## Returns

[List](#) <[string](#)>



# Class CoursesController

Namespace: [AttendanceSystem.Api.Controllers](#)








Assembly: AttendanceSystem.Api.dll

```
public class CoursesController : BaseController
```

## Inheritance

[object](#)  ← [BaseController](#) ← CoursesController

## Inherited Members

[BaseController.\\_userService](#) , [BaseController.GetUserId\(FunctionContext\)](#) ,  
[BaseController.GetUserRoles\(FunctionContext\)](#) , [BaseController.GetUser\(FunctionContext\)](#) ,  
[BaseController.AssertAuthentication\(FunctionContext, IEnumerable<string>\)](#) ,  
[object.Equals\(object\)](#)  , [object.Equals\(object, object\)](#)  , [object.GetHashCode\(\)](#)  ,  
[object.GetType\(\)](#)  , [object.MemberwiseClone\(\)](#)  , [object.ReferenceEquals\(object, object\)](#)  ,  
[object.ToString\(\)](#) 

## Constructors

CoursesController(ILogger<CoursesController>,  
CourseService, AuthenticationService, UserService)

```
public CoursesController(ILogger<CoursesController> logger, CourseService  
courseService, AuthenticationService authenticationService, UserService userService)
```

## Parameters

logger [ILogger](#)  <[CoursesController](#)>

courseService [CourseService](#)

authenticationService [AuthenticationService](#)

userService [UserService](#)

# Methods

## ConfigureCourse(HttpRequest, FunctionContext, string, CourseAlteration)

```
[Function("CoursesController-ConfigureCourse")]  
public Task<IActionResult> ConfigureCourse(HttpRequest req, FunctionContext ctx,  
string courseId, CourseAlteration alteration)
```

### Parameters

req [HttpRequest](#)

ctx [FunctionContext](#)

courseId [string](#)

alteration [CourseAlteration](#)

### Returns

[Task](#) <[IActionResult](#)>

## CreateNewCourse(HttpRequest, FunctionContext, CreateCourseContract)

```
[Function("CoursesController-CreateNewCourse")]  
public Task<IActionResult> CreateNewCourse(HttpRequest req, FunctionContext ctx,  
CreateCourseContract contract)
```

### Parameters

req [HttpRequest](#)

ctx [FunctionContext](#)

contract [CreateCourseContract](#)

### Returns

[Task](#) <[IActionResult](#)>

## DeleteCourse(HttpRequest, FunctionContext, string)

```
[Function("CoursesController-DeleteCourse")]  
public Task<IActionResult> DeleteCourse(HttpRequest req, FunctionContext ctx,  
string courseId)
```

### Parameters

req [HttpRequest](#)

ctx [FunctionContext](#)

courseId [string](#)

### Returns

[Task](#) <[IActionResult](#)>

## EnrollUser(HttpRequest, FunctionContext, string, EnrollUserContract)

```
[Function("CoursesController-EnrollUser")]  
public Task<IActionResult> EnrollUser(HttpRequest req, FunctionContext ctx, string  
courseId, EnrollUserContract contract)
```

### Parameters

req [HttpRequest](#)

ctx [FunctionContext](#)

courseId [string](#)

contract [EnrollUserContract](#)

### Returns

[Task](#) <[IActionResult](#)>

## GetAllCourses(HttpRequest, FunctionContext)

```
[Function("CoursesController-GetAllCourses")]  
public Task<IActionResult> GetAllCourses(HttpRequest req, FunctionContext ctx)
```

### Parameters

req [HttpRequest](#)

ctx [FunctionContext](#)

### Returns

[Task](#) <[IActionResult](#)>

## GetCourse(HttpRequest, FunctionContext, string)

```
[Function("CoursesController-GetCourse")]  
public Task<IActionResult> GetCourse(HttpRequest req, FunctionContext ctx,  
string courseId)
```

### Parameters

req [HttpRequest](#)

ctx [FunctionContext](#)

courseId [string](#)

### Returns

[Task](#) <[IActionResult](#)>

# Class FeedController

Namespace: [AttendanceSystem.Api.Controllers](#)








Assembly: AttendanceSystem.Api.dll

```
public class FeedController : BaseController
```

## Inheritance

[object](#)  ← [BaseController](#) ← FeedController

## Inherited Members

[BaseController.\\_userService](#) , [BaseController.GetUserId\(FunctionContext\)](#) ,  
[BaseController.GetUserRoles\(FunctionContext\)](#) , [BaseController.GetUser\(FunctionContext\)](#) ,  
[BaseController.AssertAuthentication\(FunctionContext, IEnumerable<string>\)](#) ,  
[object.Equals\(object\)](#)  , [object.Equals\(object, object\)](#)  , [object.GetHashCode\(\)](#)  ,  
[object.GetType\(\)](#)  , [object.MemberwiseClone\(\)](#)  , [object.ReferenceEquals\(object, object\)](#)  ,  
[object.ToString\(\)](#) 

## Constructors

FeedController(ILogger<SessionsController>,  
AttendanceService, AuthenticationService, UserService)

```
public FeedController(ILogger<SessionsController> logger, AttendanceService  
attendanceService, AuthenticationService authenticationService,  
UserService userService)
```

## Parameters

logger [ILogger](#)  <[SessionsController](#)>

attendanceService [AttendanceService](#)

authenticationService [AuthenticationService](#)

userService [UserService](#)

# Methods

## GetUpcomingSessions(HttpRequest, FunctionContext)

Gets the upcoming session for the logged-in user

```
[Function("FeedController-GetUpcomingSessions")]  
[ProducesResponseType<List<SessionDTO>>(200)]  
public Task<IActionResult> GetUpcomingSessions(HttpRequest req, FunctionContext ctx)
```

### Parameters

req [HttpRequest](#)

ctx [FunctionContext](#)

### Returns

[Task](#) <[IActionResult](#)>

The upcoming session which the user needs to attend.

# Class SessionsController

Namespace: [AttendanceSystem.Api.Controllers](#)








Assembly: AttendanceSystem.Api.dll

```
public class SessionsController : BaseController
```

## Inheritance

[object](#)  ← [BaseController](#) ← SessionsController

## Inherited Members

[BaseController.\\_userService](#) , [BaseController.GetUserId\(FunctionContext\)](#) ,  
[BaseController.GetUserRoles\(FunctionContext\)](#) , [BaseController.GetUser\(FunctionContext\)](#) ,  
[BaseController.AssertAuthentication\(FunctionContext, IEnumerable<string>\)](#) ,  
[object.Equals\(object\)](#)  , [object.Equals\(object, object\)](#)  , [object.GetHashCode\(\)](#)  ,  
[object.GetType\(\)](#)  , [object.MemberwiseClone\(\)](#)  , [object.ReferenceEquals\(object, object\)](#)  ,  
[object.ToString\(\)](#) 

## Constructors

SessionsController(ILogger<SessionsController>,  
AttendanceService, AuthenticationService, UserService,  
CourseService)

```
public SessionsController(ILogger<SessionsController> logger, AttendanceService  
attendanceService, AuthenticationService authenticationService, UserService  
userService, CourseService courseService)
```

## Parameters

logger [ILogger](#)  <[SessionsController](#)>

attendanceService [AttendanceService](#)

authenticationService [AuthenticationService](#)

userService [UserService](#)

courseService [CourseService](#)

## Methods

### CreateNewSession(HttpRequest, FunctionContext, string, CreateSessionContract)

```
[Function("SessionsController-CreateNewSession")]  
public Task<IActionResult> CreateNewSession(HttpRequest req, FunctionContext ctx,  
string courseId, CreateSessionContract contract)
```

#### Parameters

req [HttpRequest](#)

ctx [FunctionContext](#)

courseId [string](#)

contract [CreateSessionContract](#)

#### Returns

[Task](#) <[IActionResult](#)>

### DeleteSession(HttpRequest, FunctionContext, string, Guid)

```
[Function("SessionsController-DeleteSession")]  
public Task<IActionResult> DeleteSession(HttpRequest req, FunctionContext ctx,  
string courseId, Guid sessionId)
```

#### Parameters

req [HttpRequest](#)

ctx [FunctionContext](#)



courseId [string](#)

sessionId [Guid](#)

Returns

[Task](#) <[IActionResult](#)>

## GetAllSessions(HttpRequest, FunctionContext, string)

```
[Function("SessionsController-GetAllSessions")]  
public Task<IActionResult> GetAllSessions(HttpRequest req, FunctionContext ctx,  
string courseId)
```

Parameters

req [HttpRequest](#)

ctx [FunctionContext](#)

courseId [string](#)

Returns

[Task](#) <[IActionResult](#)>

## GetSessionInfo(HttpRequest, FunctionContext, string, Guid)

Gets the information for a specific session.

```
[Function("SessionsController-GetSessionInfo")]  
[ProducesResponseType<GetAttendanceListContract>(200)]  
public Task<IActionResult> GetSessionInfo(HttpRequest req, FunctionContext ctx,  
string courseId, Guid sessionId)
```

Parameters

req [HttpRequest](#)

The http request of the function.

ctx [FunctionContext](#)

The context of the functions.

courseId [string](#)

The id of the course.

sessionId [Guid](#)

The id of the session.

## Returns

[Task](#) <[IActionResult](#)>

The session information.

## Remarks

When the user is a teacher, the register is available. When the user is a student, only their own attendance is available.

## SetAttendance(HttpRequest, FunctionContext, string, Guid, List<UpdateAttendanceContractItem>)

```
[Function("SessionsController-SetAttendance")]  
public Task<IActionResult> SetAttendance(HttpRequest req, FunctionContext ctx,  
string courseId, Guid sessionId, List<UpdateAttendanceContractItem> contract)
```

## Parameters

req [HttpRequest](#)

ctx [FunctionContext](#)

courseId [string](#)

sessionId [Guid](#)

contract [List](#) <[UpdateAttendanceContractItem](#)>

## Returns

[Task](#) <[IActionResult](#)>

# Class SwaggerController

Namespace: [AttendanceSystem.Api.Controllers](#)

Assembly: AttendanceSystem.Api.dll








Represents the controller that serves the swagger documents

```
public class SwaggerController
```

## Inheritance

[object](#)  ← SwaggerController

## Inherited Members

[object.Equals\(object\)](#)  , [object.Equals\(object, object\)](#)  , [object.GetHashCode\(\)](#)  ,  
[object.GetType\(\)](#)  , [object.MemberwiseClone\(\)](#)  , [object.ReferenceEquals\(object, object\)](#)  ,  
[object.ToString\(\)](#) 

## Constructors

### SwaggerController(ILogger<SwaggerController>, ISwashBuckleClient)

Represents the controller that serves the swagger documents

```
public SwaggerController(ILogger<SwaggerController> logger,  
    ISwashBuckleClient swashBuckleClient)
```

## Parameters

**logger** [ILogger](#)  <[SwaggerController](#)>

**swashBuckleClient** ISwashBuckleClient

## Methods

### SwaggerJson(HttpRequestData)

```
[SwaggerIgnore]
[Function("Swagger-Json")]
public Task<HttpresponseData> SwaggerJson(HttprequestData req)
```

## Parameters

req [HttpRequestData](#)

## Returns

[Task](#) <[HttpresponseData](#)>

# SwaggerOAuth2Redirect(HttprequestData)

This is only needed for OAuth2 client. This redirecting document is normally served as a static content. Functions don't provide this out of the box, so we serve it here. Don't forget to set OAuth2RedirectPath configuration option to reflect this route.

```
[SwaggerIgnore]
[Function("Swagger-OAuth2Redirect")]
public Task<HttpresponseData> SwaggerOAuth2Redirect(HttprequestData req)
```

## Parameters

req [HttpRequestData](#)

The request given by the azure functions

## Returns

[Task](#) <[HttpresponseData](#)>

An OAuth2 Redirect Response

# SwaggerUi(HttprequestData)

```
[SwaggerIgnore]
[Function("Swagger-Ui")]
```

```
public Task<HttpresponseData> SwaggerUi(HttprequestData req)
```

## Parameters

req [HttpRequestData](#)

## Returns

[Task](#) <[HttpresponseData](#)>

# Class UsersController

Namespace: [AttendanceSystem.Api.Controllers](#)








Assembly: AttendanceSystem.Api.dll

```
public class UsersController : BaseController
```

## Inheritance

[object](#)  ← [BaseController](#) ← UsersController

## Inherited Members

[BaseController.\\_userService](#) , [BaseController.GetUserId\(FunctionContext\)](#) ,  
[BaseController.GetUserRoles\(FunctionContext\)](#) , [BaseController.GetUser\(FunctionContext\)](#) ,  
[BaseController.AssertAuthentication\(FunctionContext, IEnumerable<string>\)](#) ,  
[object.Equals\(object\)](#)  , [object.Equals\(object, object\)](#)  , [object.GetHashCode\(\)](#)  ,  
[object.GetType\(\)](#)  , [object.MemberwiseClone\(\)](#)  , [object.ReferenceEquals\(object, object\)](#)  ,  
[object.ToString\(\)](#) 

## Constructors

UsersController(ILogger<UsersController>, UserService, AuthenticationService)

```
public UsersController(ILogger<UsersController> logger, UserService userService,  
    AuthenticationService authenticationService)
```

## Parameters

logger [ILogger](#)  <[UsersController](#)>

userService [UserService](#)

authenticationService [AuthenticationService](#)

## Methods

# ConfigureUser(HttpRequest, FunctionContext, string, UserAlteration)

```
[Function("UsersController-ConfigureUser")]  
public Task<IActionResult> ConfigureUser(HttpRequest req, FunctionContext ctx,  
string userId, UserAlteration alteration)
```

## Parameters

req [HttpRequest](#)

ctx [FunctionContext](#)

userId [string](#)

alteration [UserAlteration](#)

## Returns

[Task](#) <[IActionResult](#)>

# CreateUser(HttpRequest, FunctionContext, CreateUserContract)

```
[Function("UsersController-CreateUser")]  
public Task<IActionResult> CreateUser(HttpRequest req, FunctionContext ctx,  
CreateUserContract contract)
```

## Parameters

req [HttpRequest](#)

ctx [FunctionContext](#)

contract [CreateUserContract](#)

## Returns

[Task](#) <[IActionResult](#)>



## DeleteUser(HttpRequest, FunctionContext, string)

```
[Function("UsersController-DeleteUser")]  
public Task<IActionResult> DeleteUser(HttpRequest req, FunctionContext ctx,  
string userId)
```

### Parameters

req [HttpRequest](#)

ctx [FunctionContext](#)

userId [string](#)

### Returns

[Task](#) <[IActionResult](#)>

## GetAllUsers(HttpRequest, FunctionContext)

```
[Function("UsersController-GetAllUsers")]  
public Task<IActionResult> GetAllUsers(HttpRequest req, FunctionContext ctx)
```

### Parameters

req [HttpRequest](#)

ctx [FunctionContext](#)

### Returns

[Task](#) <[IActionResult](#)>

## GetUser(HttpRequest, FunctionContext, string)

```
[Function("UsersController-GetUser")]  
public Task<IActionResult> GetUser(HttpRequest req, FunctionContext ctx,  
string userId)
```

## Parameters

req [HttpRequest](#)

ctx [FunctionContext](#)

userId [string](#)

## Returns

[Task](#) <[ActionResult](#)>

# Namespace AttendanceSystem.Api. Middleware

## Classes

[AuthenticationHandler](#)

[ExceptionToErrorCodeHandler](#)

# Class AuthenticationHandler

Namespace: [AttendanceSystem.Api.Middleware](#)

Assembly: AttendanceSystem.Api.dll

```
public class AuthenticationHandler : IFunctionsWorkerMiddleware
```

## Inheritance

[object](#) ← AuthenticationHandler

## Implements

[IFunctionsWorkerMiddleware](#)

## Inherited Members

[object.Equals\(object\)](#), [object.Equals\(object, object\)](#), [object.GetHashCode\(\)](#), [object.GetType\(\)](#), [object.MemberwiseClone\(\)](#), [object.ReferenceEquals\(object, object\)](#), [object.ToString\(\)](#)

## Constructors

AuthenticationHandler(ILogger<AuthenticationHandler> logger, JwtTokenHandler)

```
public AuthenticationHandler(ILogger<AuthenticationHandler> logger,  
    JwtTokenHandler jwtHandler)
```

## Parameters

logger [ILogger](#) <[AuthenticationHandler](#)>

jwtHandler [JwtTokenHandler](#)

## Methods

Invoke(FunctionContext, FunctionExecutionDelegate)

Invokes the middleware.

```
public Task Invoke(FunctionContext context, FunctionExecutionDelegate next)
```

## Parameters

**context** [FunctionContext](#)

The [FunctionContext](#) for the current invocation.

**next** [FunctionExecutionDelegate](#)

The next middleware in the pipeline.

## Returns

[Task](#)

A [Task](#) that represents the asynchronous invocation.


# Class ExceptionToErrorCodeHandler

Namespace: [AttendanceSystem.Api.Middleware](#)

Assembly: AttendanceSystem.Api.dll

```
public class ExceptionToErrorCodeHandler : IFunctionsWorkerMiddleware
```








## Inheritance

[object](#)  ← ExceptionToErrorCodeHandler

## Implements

[IFunctionsWorkerMiddleware](#) 

## Inherited Members

[object.Equals\(object\)](#)  , [object.Equals\(object, object\)](#)  , [object.GetHashCode\(\)](#)  ,  
[object.GetType\(\)](#)  , [object.MemberwiseClone\(\)](#)  , [object.ReferenceEquals\(object, object\)](#)  ,  
[object.ToString\(\)](#) 

## Constructors

ExceptionToErrorCodeHandler(ILogger<ExceptionToErrorCodeHandler>)

```
public ExceptionToErrorCodeHandler(ILogger<ExceptionToErrorCodeHandler> logger)
```

## Parameters

logger [ILogger](#)  <[ExceptionToErrorCodeHandler](#)>

## Methods

Invoke(FunctionContext, FunctionExecutionDelegate)

Invokes the middleware.

```
public Task Invoke(FunctionContext context, FunctionExecutionDelegate next)
```

## Parameters

**context** [FunctionContext](#)

The [FunctionContext](#) for the current invocation.

**next** [FunctionExecutionDelegate](#)

The next middleware in the pipeline.

## Returns

[Task](#)

A [Task](#) that represents the asynchronous invocation.

# Namespace AttendanceSystem.Data

## Classes

[CoursesContext](#)



# Class CoursesContext

Namespace: [AttendanceSystem.Data](#)

Assembly: AttendanceSystem.Data.dll

```
public class CoursesContext : DbContext, IInfrastructure<IServiceProvider>,
    IDbContextDependencies, IDbSetCache, IDbContextPoolable, IResettableService,
    IDisposable, IAsyncDisposable
```

## Inheritance

[object](#)  ← [DbContext](#)  ← CoursesContext

## Implements

[IInfrastructure](#)  <[IServiceProvider](#) >, [IDbContextDependencies](#) , [IDbSetCache](#) ,  
[IDbContextPoolable](#) , [IResettableService](#) , [IDisposable](#) , [IAsyncDisposable](#) 

## Inherited Members

[DbContext.Set<TEntity>\(\).](#) , [DbContext.Set<TEntity>\(string\).](#) ,  
[DbContext.OnConfiguring\(DbContextOptionsBuilder\).](#) ,  
[DbContext.ConfigureConventions\(ModelConfigurationBuilder\).](#) ,  
[DbContext.SaveChanges\(\).](#) , [DbContext.SaveChanges\(bool\).](#) ,  
[DbContext.SaveChangesAsync\(CancellationTokentoken\).](#) ,  
[DbContext.SaveChangesAsync\(bool, CancellationTokentoken\).](#) , [DbContext.Dispose\(\).](#) ,  
[DbContext.DisposeAsync\(\).](#) , [DbContext.Entry<TEntity>\(TEntity\).](#) ,  
[DbContext.Entry\(object\).](#) , [DbContext.Add<TEntity>\(TEntity\).](#) ,  
[DbContext.AddAsync<TEntity>\(TEntity, CancellationTokentoken\).](#) ,  
[DbContext.Attach<TEntity>\(TEntity\).](#) , [DbContext.Update<TEntity>\(TEntity\).](#) ,  
[DbContext.Remove<TEntity>\(TEntity\).](#) , [DbContext.Add\(object\).](#) ,  
[DbContext.AddAsync\(object, CancellationTokentoken\).](#) , [DbContext.Attach\(object\).](#) ,  
[DbContext.Update\(object\).](#) , [DbContext.Remove\(object\).](#) ,  
[DbContext.AddRange\(params object\[\]\).](#) , [DbContext.AddRangeAsync\(params object\[\]\).](#) ,  
[DbContext.AttachRange\(params object\[\]\).](#) , [DbContext.UpdateRange\(params object\[\]\).](#) ,  
[DbContext.RemoveRange\(params object\[\]\).](#) ,  
[DbContext.AddRange\(IEnumerable<object>\).](#) ,  
[DbContext.AddRangeAsync\(IEnumerable<object>, CancellationTokentoken\).](#) ,  
[DbContext.AttachRange\(IEnumerable<object>\).](#) ,  
[DbContext.UpdateRange\(IEnumerable<object>\).](#) ,  
[DbContext.RemoveRange\(IEnumerable<object>\).](#) ,  
[DbContext.Find\(Type, params object\[\]\).](#) , [DbContext.FindAsync\(Type, params object\[\]\).](#) 

[DbContext.FindAsync\(Type, object\[\], CancellationToken\)](#) ,  
[DbContext.Find<TEntity>\(params object\[\]\)](#) ,  
[DbContext.FindAsync<TEntity>\(params object\[\]\)](#) ,  
[DbContext.FindAsync<TEntity>\(object\[\], CancellationToken\)](#) ,  
[DbContext.FromExpression<TResult>\(Expression<Func<IQueryable<TResult>>>\)](#) ,  
[DbContext.Database](#) , [DbContext.ChangeTracker](#) , [DbContext.Model](#) ,  
[DbContext.ContextId](#) , [DbContext.SavingChanges](#) , [DbContext.SavedChanges](#) ,  
[DbContext.SaveChangesFailed](#) , [object.Equals\(object\)](#) , [object.Equals\(object, object\)](#) ,  
[object.GetHashCode\(\)](#) , [object.GetType\(\)](#) , [object.MemberwiseClone\(\)](#) ,  
[object.ReferenceEquals\(object, object\)](#) , [object.ToString\(\)](#)

## Constructors

### CoursesContext(DbContextOptions<CoursesContext>)

```
public CoursesContext(DbContextOptions<CoursesContext> options)
```

#### Parameters

**options** [DbContextOptions](#) <[CoursesContext](#)>

## Properties

### Courses

```
public DbSet<Course> Courses { get; set; }
```

#### Property Value

[DbSet](#) <[Course](#)>

## Departments

```
public DbSet<Department> Departments { get; set; }
```

Property Value

[DbSet](#) <[Department](#)>

## Sessions

```
public DbSet<Session> Sessions { get; set; }
```

Property Value

[DbSet](#) <[Session](#)>

## Students

```
public DbSet<Student> Students { get; set; }
```

Property Value

[DbSet](#) <[Student](#)>

## Users

```
public DbSet<User> Users { get; set; }
```

Property Value

[DbSet](#) <[User](#)>

## Methods

### OnModelCreating(ModelBuilder)

Override this method to further configure the model that was discovered by convention from the entity types exposed in [DbSet<TEntity>](#) properties on your derived context. The

resulting model may be cached and re-used for subsequent instances of your derived context.


```
protected override void OnModelCreating(ModelBuilder modelBuilder)
```

## Parameters

`modelBuilder` [ModelBuilder](#)

The builder being used to construct the model for this context. Databases (and other extensions) typically define extension methods on this object that allow you to configure aspects of the model that are specific to a given database.

## Remarks

If a model is explicitly set on the options for this context (via [UseModel\(IModel\)](#)) then this method will not be run. However, it will still run when creating a compiled model.

See [Modeling entity types and relationships](#) for more information and examples.

# Namespace AttendanceSystem.Data.

## Migrations

### Classes

#### [Initial](#)

A base class inherited by each EF Core migration.

# Class Initial

Namespace: [AttendanceSystem.Data.Migrations](#)

Assembly: AttendanceSystem.Data.dll













A base class inherited by each EF Core migration.

```
[DbContext(typeof(CoursesContext))]  
[Migration("20250305112651_Initial")]  
public class Initial : Migration
```


## Inheritance

[object](#)  ← [Migration](#)  ← Initial

## Inherited Members

[Migration.InitialDatabase](#)  , [Migration.TargetModel](#)  , [Migration.UpOperations](#)  , [Migration.DownOperations](#)  , [Migration.ActiveProvider](#)  , [object.Equals\(object\)](#)  , [object.Equals\(object, object\)](#)  , [object.GetHashCode\(\)](#)  , [object.GetType\(\)](#)  , [object.MemberwiseClone\(\)](#)  , [object.ReferenceEquals\(object, object\)](#)  , [object.ToString\(\)](#) 

## Remarks

See [Database migrations](#)  for more information and examples.

## Methods

### BuildTargetModel(ModelBuilder)

Implemented to build the [TargetModel](#) .

```
protected override void BuildTargetModel(ModelBuilder modelBuilder)
```

## Parameters

**modelBuilder** [ModelBuilder](#) 

The [ModelBuilder](#)  to use to build the model.

## Remarks

See [Database migrations](#) for more information and examples.

## Down(MigrationBuilder)

Builds the operations that will migrate the database 'down'.

```
protected override void Down(MigrationBuilder migrationBuilder)
```

### Parameters

`migrationBuilder` [MigrationBuilder](#)

The [MigrationBuilder](#) that will build the operations.

### Remarks

That is, builds the operations that will take the database from the state left in by this migration so that it returns to the state that it was in before this migration was applied.

This method must be overridden in each class that inherits from [Migration](#) if both 'up' and 'down' migrations are to be supported. If it is not overridden, then calling it will throw and it will not be possible to migrate in the 'down' direction.

See [Database migrations](#) for more information and examples.

## Up(MigrationBuilder)

Builds the operations that will migrate the database 'up'.

```
protected override void Up(MigrationBuilder migrationBuilder)
```

### Parameters

`migrationBuilder` [MigrationBuilder](#)

The [MigrationBuilder](#) that will build the operations.

### Remarks

That is, builds the operations that will take the database from the state left in by the previous migration so that it is up-to-date with regard to this migration.

This method must be overridden in each class that inherits from [Migration](#)<sup>↗</sup>.

See [Database migrations](#)<sup>↗</sup> for more information and examples.



# Namespace AttendanceSystem.Domain. Model

## Classes

[Administrator](#)

[AttendanceRecord](#)

[AttendanceSubmission](#)

[Course](#)

[Department](#)

[Session](#)

[Student](#)

[Teacher](#)

[User](#)

## Enums

[AttendanceKind](#)

# Class Administrator

Namespace: [AttendanceSystem.Domain.Model](#)








Assembly: AttendanceSystem.Domain.Model.dll

```
public class Administrator : User
```

## Inheritance

[object](#)  ← [User](#) ← Administrator

## Inherited Members

[User.Id](#) , [User.Name](#) , [User.Email](#) , [User.Courses](#) , [object.Equals\(object\)](#)  ,  
[object.Equals\(object, object\)](#)  , [object.GetHashCode\(\)](#)  , [object.GetType\(\)](#)  ,  
[object.MemberwiseClone\(\)](#)  , [object.ReferenceEquals\(object, object\)](#)  , [object.ToString\(\)](#) 

# Enum AttendanceKind

Namespace: [AttendanceSystem.Domain.Model](#)

Assembly: AttendanceSystem.Domain.Model.dll

```
[JsonConverter(typeof(JsonStringEnumConverter))]  
public enum AttendanceKind
```

## Fields

Absent = 2

Late = 3

LeftEarly = 5

Present = 1

Sick = 4

Unknown = 0


# Class AttendanceRecord

Namespace: [AttendanceSystem.Domain.Model](#)

Assembly: AttendanceSystem.Domain.Model.dll

```
public record AttendanceRecord : IEquatable<AttendanceRecord>
```

## Inheritance

[object](#)  ← AttendanceRecord








## Implements

[IEquatable](#)  <[AttendanceRecord](#)>

## Derived

[ExtendedAttendanceRecord](#)

## Inherited Members

[object.Equals\(object\)](#)  , [object.Equals\(object, object\)](#)  , [object.GetHashCode\(\)](#)  ,  
[object.GetType\(\)](#)  , [object.MemberwiseClone\(\)](#)  , [object.ReferenceEquals\(object, object\)](#)  ,  
[object.ToString\(\)](#) 

## Properties

### SessionId

```
public required Guid SessionId { get; set; }
```

Property Value

[Guid](#) 

### StudentId

```
public required string StudentId { get; set; }
```

Property Value

[string](#)<sup>↗</sup>

## StudentSubmission

```
public required AttendanceSubmission StudentSubmission { get; set; }
```

Property Value

[AttendanceSubmission](#)

## TeacherSubmission

```
public required AttendanceSubmission TeacherSubmission { get; set; }
```

Property Value

[AttendanceSubmission](#)

# Class AttendanceSubmission


Namespace: [AttendanceSystem.Domain.Model](#)

Assembly: AttendanceSystem.Domain.Model.dll

[Owned]

```
public record AttendanceSubmission : IEquatable<AttendanceSubmission>
```








## Inheritance

[object](#)  ← AttendanceSubmission

## Implements

[IEquatable](#)  <[AttendanceSubmission](#)>

## Inherited Members

[object.Equals\(object\)](#)  , [object.Equals\(object, object\)](#)  , [object.GetHashCode\(\)](#)  ,  
[object.GetType\(\)](#)  , [object.MemberwiseClone\(\)](#)  , [object.ReferenceEquals\(object, object\)](#)  ,  
[object.ToString\(\)](#) 

## Constructors

### AttendanceSubmission()

```
public AttendanceSubmission()
```

## Properties

### Attendance

```
public required AttendanceKind Attendance { get; set; }
```

### Property Value

[AttendanceKind](#)

# IsSubmitted

[NotMapped]

```
public bool IsSubmitted { get; }
```

Property Value

[bool](#)

# Submitted

```
public DateTime? Submitted { get; }
```

Property Value

[DateTime](#)?

# Class Course

Namespace: [AttendanceSystem.Domain.Model](#)

Assembly: AttendanceSystem.Domain.Model.dll

```
public class Course
```

## Inheritance

[object](#)  ← Course

## Inherited Members

[object.Equals\(object\)](#)  , [object.Equals\(object, object\)](#)  , [object.GetHashCode\(\)](#)  ,  
[object.GetType\(\)](#)  , [object.MemberwiseClone\(\)](#)  , [object.ReferenceEquals\(object, object\)](#)  ,  
[object.ToString\(\)](#) 

## Constructors

Course(string, string, string, List<string>)

```
public Course(string id, string name, string department, List<string> teachers)
```

## Parameters

id [string](#) 

name [string](#) 

department [string](#) 

teachers [List](#)  <[string](#)  >

## Properties

### Department

```
public string Department { get; }
```



Property Value

[string](#)

Id

```
public String Id { get; }
```

Property Value

[string](#)

Name

```
public String Name { get; }
```

Property Value

[string](#)

Sessions

```
public List<Session> Sessions { get; }
```

Property Value

[List](#) <[Session](#)>

Students

```
public List<String> Students { get; }
```

Property Value

[List](#) <[string](#)>

## Teachers

```
public List<string> Teachers { get; }
```

## Property Value

[List](#) <[string](#)>

# Class Department

Namespace: [AttendanceSystem.Domain.Model](#)








Assembly: AttendanceSystem.Domain.Model.dll

```
public class Department
```

## Inheritance

[object](#)  ← Department

## Inherited Members

[object.Equals\(object\)](#)  , [object.Equals\(object, object\)](#)  , [object.GetHashCode\(\)](#)  ,  
[object.GetType\(\)](#)  , [object.MemberwiseClone\(\)](#)  , [object.ReferenceEquals\(object, object\)](#)  ,  
[object.ToString\(\)](#) 

## Properties

### Name

```
public string Name { get; set; }
```

### Property Value

[string](#) 

# Class Session

Namespace: [AttendanceSystem.Domain.Model](#)

Assembly: AttendanceSystem.Domain.Model.dll

```
public class Session
```

## Inheritance

[object](#)  ← Session

## Inherited Members

[object.Equals\(object\)](#)  , [object.Equals\(object, object\)](#)  , [object.GetHashCode\(\)](#)  ,  
[object.GetType\(\)](#)  , [object.MemberwiseClone\(\)](#)  , [object.ReferenceEquals\(object, object\)](#)  ,  
[object.ToString\(\)](#) 

## Constructors

Session(Course, List<string>, DateTime, DateTime)

```
public Session(Course course, List<string> students, DateTime startTime,  
DateTime endTime)
```

## Parameters

course [Course](#)

students [List](#)  <[string](#)  >

startTime [DateTime](#) 

endTime [DateTime](#) 

## Properties

Course

```
public required Course Course { get; set; }
```

Property Value

[Course](#)

## EndTime

```
public required DateTime EndTime { get; set; }
```

Property Value

[DateTime](#)

## Id

```
public Guid Id { get; init; }
```

Property Value

[Guid](#)

## Register

```
public ICollection<AttendanceRecord> Register { get; }
```

Property Value

[ICollection](#) <[AttendanceRecord](#)>

## StartTime

```
public required DateTime StartTime { get; set; }
```

Property Value


[DateTime](#)

## Methods

### SetStudentAttendance(string, AttendanceKind)

```
public void SetStudentAttendance(string studentId, AttendanceKind attendance)
```

Parameters


studentId [string](#)

attendance [AttendanceKind](#)

### SetTeacherApproval(string, AttendanceKind)

```
public void SetTeacherApproval(string studentId, AttendanceKind attendance)
```

Parameters

studentId [string](#)

attendance [AttendanceKind](#)

# Class Student

Namespace: [AttendanceSystem.Domain.Model](#)








Assembly: AttendanceSystem.Domain.Model.dll

```
public class Student : User
```

## Inheritance

[object](#)  ← [User](#) ← Student

## Inherited Members

[User.Id](#) , [User.Name](#) , [User.Email](#) , [User.Courses](#) , [object.Equals\(object\)](#)  ,  
[object.Equals\(object, object\)](#)  , [object.GetHashCode\(\)](#)  , [object.GetType\(\)](#)  ,  
[object.MemberwiseClone\(\)](#)  , [object.ReferenceEquals\(object, object\)](#)  , [object.ToString\(\)](#) 

# Class Teacher

Namespace: [AttendanceSystem.Domain.Model](#)








Assembly: AttendanceSystem.Domain.Model.dll

```
public class Teacher : User
```

## Inheritance

[object](#)  ← [User](#) ← Teacher

## Inherited Members

[User.Id](#) , [User.Name](#) , [User.Email](#) , [User.Courses](#) , [object.Equals\(object\)](#)  ,  
[object.Equals\(object, object\)](#)  , [object.GetHashCode\(\)](#)  , [object.GetType\(\)](#)  ,  
[object.MemberwiseClone\(\)](#)  , [object.ReferenceEquals\(object, object\)](#)  , [object.ToString\(\)](#) 



# Class User

Namespace: [AttendanceSystem.Domain.Model](#)

Assembly: AttendanceSystem.Domain.Model.dll

```
public class User
```








## Inheritance

[object](#)  ← User

## Derived

[Administrator](#), [Student](#), [Teacher](#)

## Inherited Members

[object.Equals\(object\)](#) , [object.Equals\(object, object\)](#) , [object.GetHashCode\(\)](#) ,  
[object.GetType\(\)](#) , [object.MemberwiseClone\(\)](#) , [object.ReferenceEquals\(object, object\)](#) ,  
[object.ToString\(\)](#) 

# Properties

## Courses

```
public List<Course> Courses { get; set; }
```

## Property Value

[List](#)  <[Course](#)>

## Email

```
public string Email { get; set; }
```

## Property Value

[string](#) 

# Id

Gets or sets the internal ID managed by the external identity provider.

```
public string Id { get; init; }
```

## Property Value

[string](#)

## Remarks

We want to store this because otherwise, we cannot identify the user based on the information provided by the identity provider.

# Name

```
public string Name { get; set; }
```

## Property Value

[string](#)

# Namespace AttendanceSystem.Domain. Model.Exceptions

## Classes

[EntityNotFoundException](#)

# Class EntityNotFoundException

Namespace: [AttendanceSystem.Domain.Model.Exceptions](#)

Assembly: AttendanceSystem.Domain.Model.dll

```
public class EntityNotFoundException : Exception, ISerializable
```

## Inheritance

[object](#) ← [Exception](#) ← EntityNotFoundException

## Implements

[ISerializable](#)

## Inherited Members

[Exception.GetBaseException\(\)](#), [Exception.GetType\(\)](#), [Exception.ToString\(\)](#), [Exception.Data](#), [Exception.HelpLink](#), [Exception.HResult](#), [Exception.InnerException](#), [Exception.Message](#), [Exception.Source](#), [Exception.StackTrace](#), [Exception.TargetSite](#), [Exception.SerializeObjectState](#), [object.Equals\(object\)](#), [object.Equals\(object, object\)](#), [object.GetHashCode\(\)](#), [object.MemberwiseClone\(\)](#), [object.ReferenceEquals\(object, object\)](#)

## Constructors

### EntityNotFoundException(string)

```
public EntityNotFoundException(string message)
```

## Parameters

message [string](#)

# Namespace AttendanceSystem.Domain. Services

## Classes

[AttendanceService](#)

[CourseService](#)

[UserService](#)


# Class AttendanceService

Namespace: [AttendanceSystem.Domain.Services](#)

Assembly: AttendanceSystem.Domain.Services.dll

```
public class AttendanceService
```

## Inheritance

[object](#)  ← AttendanceService

## Inherited Members

[object.Equals\(object\)](#)  , [object.Equals\(object, object\)](#)  , [object.GetHashCode\(\)](#)  , [object.GetType\(\)](#)  , [object.MemberwiseClone\(\)](#)  , [object.ReferenceEquals\(object, object\)](#)  , [object.ToString\(\)](#) 

## Constructors

### AttendanceService(CoursesContext)

```
public AttendanceService(CoursesContext context)
```

## Parameters

**context** [CoursesContext](#)

## Methods

### CreateSession(string, DateTime, DateTime, List<string>)

```
public Task<Session> CreateSession(string courseId, DateTime startdate, DateTime enddate, List<string> students)
```

## Parameters

courseId [string](#)

startdate [DateTime](#)

enddate [DateTime](#)

students [List](#) <[string](#)>

Returns

[Task](#) <[Session](#)>

## DeleteSession(Guid)

```
public Task DeleteSession(Guid sessionId)
```

Parameters

sessionId [Guid](#)

Returns

[Task](#)

## GetSession(Guid)

```
public Task<Session> GetSession(Guid sessionId)
```

Parameters

sessionId [Guid](#)

Returns

[Task](#) <[Session](#)>

## GetSessionStatus(Guid, string)

```
public Task<AttendanceRecord?> GetSessionStatus(Guid sessionId, string userId)
```

## Parameters

sessionId [Guid](#)

userId [string](#)

## Returns

[Task](#) <[AttendanceRecord](#)>

## GetSessionStatuses(string, List<Guid>)

```
public Task<Dictionary<Guid, AttendanceRecord>> GetSessionStatuses(string userId, List<Guid> toList)
```

## Parameters

userId [string](#)

toList [List](#) <[Guid](#)>

## Returns

[Task](#) <[Dictionary](#) <[Guid](#), [AttendanceRecord](#)>>

## GetSessionWithRegister(Guid)

```
public Task<Session> GetSessionWithRegister(Guid sessionId)
```

## Parameters

sessionId [Guid](#)

## Returns



[Task](#) <[Session](#)>

## GetSessions(string)

```
public Task<List<Session>> GetSessions(string courseId)
```

### Parameters

courseId [string](#)

### Returns

[Task](#) <[List](#) <[Session](#)>>

## GetUpcomingSessionsForUser(string)

```
public Task<List<Session>> GetUpcomingSessionsForUser(string userId)
```

### Parameters

userId [string](#)

### Returns

[Task](#) <[List](#) <[Session](#)>>

## SetStudentAttendance(Guid, string, AttendanceKind)

```
public Task SetStudentAttendance(Guid sessionId, string studentId,  
AttendanceKind kind)
```

### Parameters

sessionId [Guid](#)

studentId [string](#)

kind [AttendanceKind](#)

Returns

[Task](#) 

## SetTeacherApproval(Guid, string, AttendanceKind)

```
public Task SetTeacherApproval(Guid sessionId, string studentId,  
AttendanceKind kind)
```

Parameters

sessionId [Guid](#) 

studentId [string](#) 

kind [AttendanceKind](#)

Returns

[Task](#) 

# Class CourseService

Namespace: [AttendanceSystem.Domain.Services](#)








Assembly: AttendanceSystem.Domain.Services.dll

```
public class CourseService
```

## Inheritance

[object](#)  ← CourseService

## Inherited Members

[object.Equals\(object\)](#)  , [object.Equals\(object, object\)](#)  , [object.GetHashCode\(\)](#)  , [object.GetType\(\)](#)  , [object.MemberwiseClone\(\)](#)  , [object.ReferenceEquals\(object, object\)](#)  , [object.ToString\(\)](#) 

## Constructors

### CourseService(CoursesContext)

```
public CourseService(CoursesContext context)
```

## Parameters

context [CoursesContext](#)

## Methods

### ConfigureCourse(string, CourseAlteration)

```
public Task<Course> ConfigureCourse(string courseId, CourseAlteration alteration)
```

## Parameters

courseId [string](#) 

alteration [CourseAlteration](#)

Returns

[Task](#) <[Course](#)>

## CourseExists(string)

```
public Task<bool> CourseExists(string courseId)
```

Parameters

courseId [string](#)

Returns

[Task](#) <[bool](#)>

## CreateNewCourse(string, string, string, List<string>)

```
public Task<Course> CreateNewCourse(string id, string name, string departmentId,  
List<string> teacherIds)
```

Parameters

id [string](#)

name [string](#)

departmentId [string](#)

teacherIds [List](#) <[string](#)>

Returns

[Task](#) <[Course](#)>

## DeleteCourse(string)

```
public Task DeleteCourse(string courseId)
```

### Parameters

courseId [string](#)

### Returns

[Task](#)

## EnrollUser(string, string)

```
public Task EnrollUser(string courseId, string userId)
```

### Parameters

courseId [string](#)

userId [string](#)

### Returns

[Task](#)

## GetAllCourses()

```
public Task<List<Course>> GetAllCourses()
```

### Returns

[Task](#) <[List](#) <[Course](#)>>

## GetAllCourses(string)

```
public Task<List<Course>> GetAllCourses(string userId)
```

## Parameters

userId [string](#)

## Returns

[Task](#) <[List](#) <[Course](#)>>

## GetCourse(string)

```
public Task<Course> GetCourse(string courseId)
```

## Parameters

courseId [string](#)

## Returns

[Task](#) <[Course](#)>

## UserCanAccessCourse(string, string)

```
public Task<bool> UserCanAccessCourse(string courseId, string userId)
```

## Parameters

courseId [string](#)

userId [string](#)

## Returns

[Task](#) <[bool](#)>


# Class UserService

Namespace: [AttendanceSystem.Domain.Services](#)

Assembly: AttendanceSystem.Domain.Services.dll

```
public class UserService
```

## Inheritance

[object](#)  ← UserService

## Inherited Members

[object.Equals\(object\)](#)  , [object.Equals\(object, object\)](#)  , [object.GetHashCode\(\)](#)  , [object.GetType\(\)](#)  , [object.MemberwiseClone\(\)](#)  , [object.ReferenceEquals\(object, object\)](#)  , [object.ToString\(\)](#) 

## Constructors

### UserService(CoursesContext)

```
public UserService(CoursesContext context)
```

## Parameters

context [CoursesContext](#)

## Methods

### CreateAdministrator(string, string, string)

```
public Task<User> CreateAdministrator(string id, string name, string email)
```

## Parameters

id [string](#) 

name [string](#)

email [string](#)

Returns

[Task](#) <[User](#)>

## CreateStudent(string, string, string)

```
public Task<User> CreateStudent(string id, string name, string email)
```

Parameters

id [string](#)

name [string](#)

email [string](#)

Returns

[Task](#) <[User](#)>

## CreateTeacher(string, string, string)

```
public Task<User> CreateTeacher(string id, string name, string email)
```

Parameters

id [string](#)

name [string](#)

email [string](#)

Returns

[Task](#) <[User](#)>



## DeleteUser(string)

```
public Task DeleteUser(string userId)
```

### Parameters

userId [string](#)

### Returns

[Task](#)

## EditUser(string, UserAlteration)

```
public Task<User> EditUser(string userId, UserAlteration alteration)
```

### Parameters

userId [string](#)

alteration [UserAlteration](#)

### Returns

[Task](#) <[User](#)>

## GetAllStudents()

```
public Task<List<User>> GetAllStudents()
```

### Returns

[Task](#) <[List](#) <[User](#)>>

## GetUser(string)

```
public Task<User> GetUser(string userId)
```

### Parameters

userId [string](#)

### Returns

[Task](#) <[User](#)>

## GetUsers(List<string>)

```
public Task<List<User>> GetUsers(List<string> users)
```

### Parameters

users [List](#) <[string](#)>

### Returns

[Task](#) <[List](#) <[User](#)>>

# Namespace AttendanceSystem.Domain. Services.Alterations

## Classes

[CourseAlteration](#)

[UserAlteration](#)


# Class CourseAlteration

Namespace: [AttendanceSystem.Domain.Services.Alterations](#)

Assembly: AttendanceSystem.Domain.Services.dll

```
public class CourseAlteration
```

## Inheritance

[object](#)  ← CourseAlteration

## Inherited Members

[object.Equals\(object\)](#)  , [object.Equals\(object, object\)](#)  , [object.GetHashCode\(\)](#)  ,  
[object.GetType\(\)](#)  , [object.MemberwiseClone\(\)](#)  , [object.ReferenceEquals\(object, object\)](#)  ,  
[object.ToString\(\)](#) 

## Properties

### Department

```
public string? Department { get; set; }
```

Property Value

[string](#) 

### Name

```
public string? Name { get; set; }
```

Property Value

[string](#) 

# Class UserAlteration

Namespace: [AttendanceSystem.Domain.Services.Alterations](#)

Assembly: AttendanceSystem.Domain.Services.dll

```
public class UserAlteration
```

## Inheritance

[object](#)  ← UserAlteration

## Inherited Members

[object.Equals\(object\)](#)  , [object.Equals\(object, object\)](#)  , [object.GetHashCode\(\)](#)  ,  
[object.GetType\(\)](#)  , [object.MemberwiseClone\(\)](#)  , [object.ReferenceEquals\(object, object\)](#)  ,  
[object.ToString\(\)](#) 

## Properties

### Email

```
public string? Email { get; set; }
```

### Property Value

[string](#) 

### Name

```
public string? Name { get; set; }
```

### Property Value

[string](#) 

# Namespace AttendanceSystem.Domain. Services.Tools

## Classes

[MockDataGenerator](#)

# Class MockDataGenerator

Namespace: [AttendanceSystem.Domain.Services.Tools](#)

Assembly: AttendanceSystem.Domain.Services.dll

```
public class MockDataGenerator
```

## Inheritance

[object](#)  ← MockDataGenerator

## Inherited Members

[object.Equals\(object\)](#)  , [object.Equals\(object, object\)](#)  , [object.GetHashCode\(\)](#)  , [object.GetType\(\)](#)  , [object.MemberwiseClone\(\)](#)  , [object.ReferenceEquals\(object, object\)](#)  , [object.ToString\(\)](#) 

## Constructors

### MockDataGenerator(CoursesContext)

```
public MockDataGenerator(CoursesContext context)
```

## Parameters

context [CoursesContext](#)

## Methods

### GenerateRealData()

```
public Task GenerateRealData()
```

## Returns

[Task](#) 