### ГУАП

## КАФЕДРА № 42

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	Вариант 5	
по курсу: METC ИНФОРМАЦ	ОДЫ И СРЕДСТВА ПРОЕ ЦИОННЫХ СИСТЕМ И Т	КТИРОВАНИЯ ЕХНОЛОГИЙ

### РАБОТУ ВЫПОЛНИЛ

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# СОДЕРЖАНИЕ

1	Цель работы					
	1.1	Задані	ие	3		
2	Выі	толнені	ие работы	4		
	2.1	Кратк	ие функциональные требования к ИС	4		
	2.2	Основ	ные форма приложения для работы с БД	4		
	2.3	Сцена	рии пользования и логика диалога с пользователем	4		
		2.3.1	Сценарий 1: Вход и просмотр списка конференций	4		
		2.3.2	Сценарий 2: Создание новой конференции	5		
		2.3.3	Сценарий 3: Редактирование и удаление конференции	5		
	2.4	Приме	ер использования	6		
3	Выі	вод		12		
П	РИ.Л(	эжені	<b>Æ</b>	13		

### 1 Цель работы

Изучить методы проектирования интерфейсов пользователей.

### 1.1 Задание

Для выбранного варианта задания спроектировать интерфейс информационной системы (ИИС), обеспечивающий работу с основными объектами предметной области (ПрО), хранимыми в базе данных (БД) информационной системы (ИС).

### 2 Выполнение работы

В лабораторной работе рассматривается создание информационной системы для доски мероприятий, которая предназначена для свободной публикации конференций, докладов, дебатов и т.п. Целью работы является создание системы, которая позволит участникам сообщества свободно создавать и искать мероприятия.

### 2.1 Краткие функциональные требования к ИС

Таблица 2.1 - Виды пользователей

Пользователь	Описание задач
Участник сообщества	Запись на конференции, просмотр информации о конференциях, редактирование конференций, удаление конференций

#### 2.2 Основные форма приложения для работы с БД

Дизайн интерфейса проектировался с учетом его доступности в качестве web-сайта и нативного приложения на платформе Android. Для этого был выбран фреймворк Flutter

### 2.3 Сценарии пользования и логика диалога с пользователем

### 2.3.1 Сценарий 1: Вход и просмотр списка конференций

- 1. Вход в систему
  - Пользователь открывает приложение.
  - На экране логина вводит свои учетные данные (логин и пароль).
  - После успешной авторизации пользователь попадает на экран списка конференций.
- 2. Просмотр списка конференций
  - На экране пользователь видит список доступных конференций.
  - Для удобства поиска пользователь может использовать встроенные фильтры (по дате, теме или местоположению).
- 3. Выбор и просмотр конференции

• Пользователь нажимает на интересующую его конференцию для просмотра детальной информации.

### 2.3.2 Сценарий 2: Создание новой конференции

- 1. Доступ к функции создания конференции
  - На экране списка конференций пользователь нажимает кнопку добавления конференций.
  - Открывается экран создания конференции.
- 2. Заполнение формы создания конференции
  - Пользователь вводит необходимые детали конференции, такие как: название, описание, даты проведения, местоположение и тема.
- 3. Сохранение новой конференции
  - Пользователь нажимает кнопку «Сохранить».
  - Новая конференция добавляется в общий список.
  - Пользователь возвращается на экран списка конференций, где видит только что созданную конференцию.

### 2.3.3 Сценарий 3: Редактирование и удаление конференции

- 1. Просмотр конференции для редактирования
  - В списке конференций пользователь выбирает конференцию, которую хочет изменить, и нажимает на ее название для просмотра детализированной информации.
- 2. Редактирование конференции
  - На экране подробной информации о конференции пользователь видит кнопку «Редактировать».
  - После нажатия кнопки открывается форма редактирования конференции.
  - Пользователь вносит изменения в необходимые поля.
- 3. Сохранение изменений
  - Пользователь нажимает кнопку «Сохранить изменения».
  - Измененная информация обновляется в системе и отобразится в общем списке.
- 4. Удаление конференции
  - На экране подробной информации о конференции пользова-

тель нажимает кнопку «Удалить».

- Появляется подтверждающее диалоговое окно.
- После подтверждения конференция удаляется из списка, и пользователь возвращается на экран списка конференций.

### 2.4 Пример использования

Для начала заходим в приложение и попадаем на экран логина.

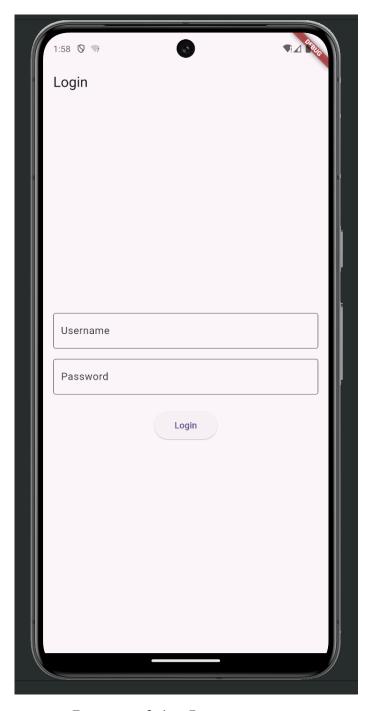


Рисунок 2.1 - Форма логина

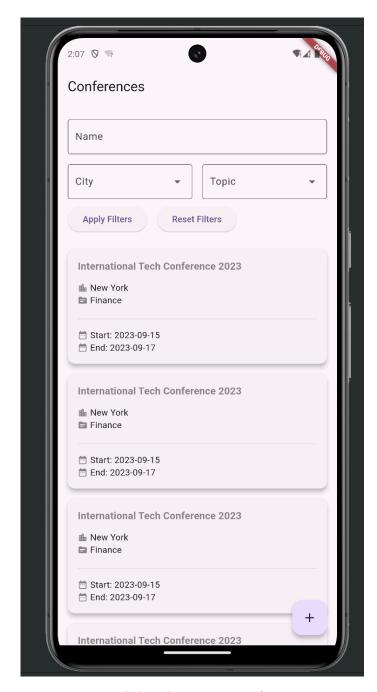


Рисунок 2.2 - Список конференций



Рисунок 2.3 - Информация о конференции

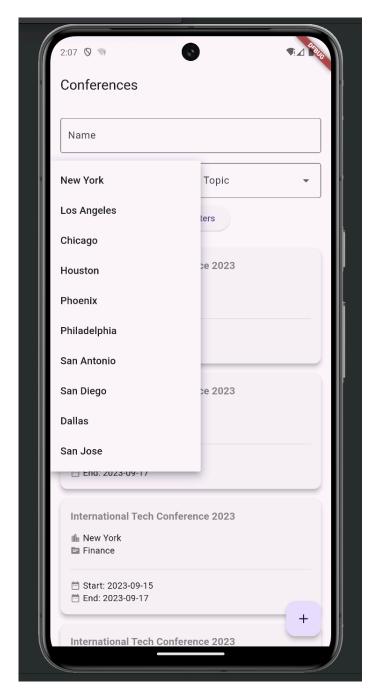


Рисунок 2.4 - Настройка фильтрации

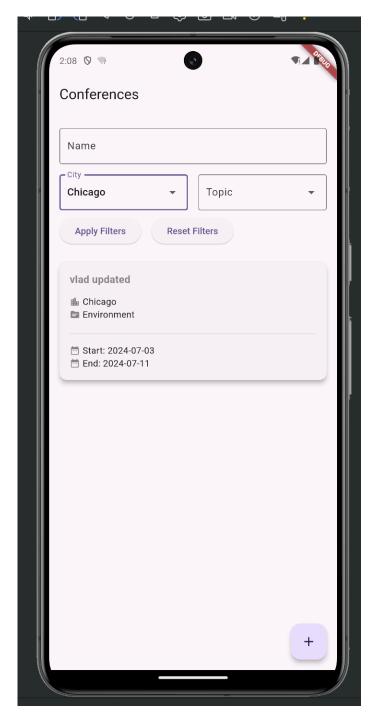


Рисунок 2.5 - Применение фильтрации

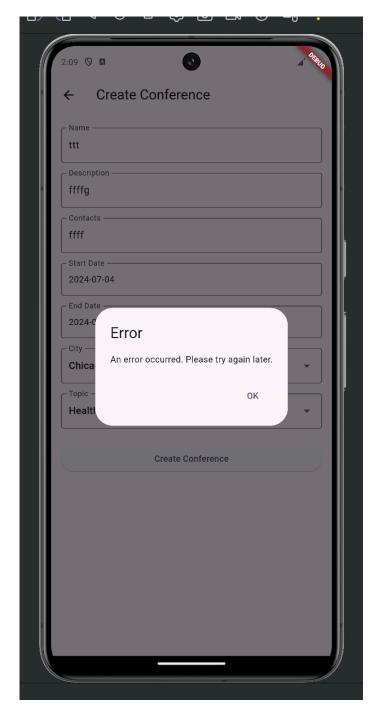


Рисунок 2.6 - Диалог об ошибке

### 3 Вывод

В ходе выполнения лабораторной работы был разработан внешний интерфейс пользователя в статическом прототипировании с использованием Flutter, описаны краткие требования к информационной системе, а также описаны основные сценарии функций и диалог пользователя с системой.

#### ПРИЛОЖЕНИЕ

```
Application.kt
1
2
    package suai. vladcto
3
4
    import io.ktor.serialization.kotlinx.json.json
    import io.ktor.server.application.Application
5
    import io.ktor.server.application.install
6
    import io.ktor.server.engine.embeddedServer
7
8
    import io.ktor.server.netty.Netty
9
    import io.ktor.server.plugins.contentnegotiation.
       ContentNegotiation
10
    import kotlinx.serialization.json.Json
    import suai.vladcto.routing.configureRouting
11
12
13
    fun main(args: Array < String >) {
14
        embeddedServer(
15
            Netty,
            port = 8080,
16
            host = "127.0.0.1",
17
18
            module = Application::module
19
        ).start(wait = true)
20
21
22
    fun Application.module() {
23
        install (ContentNegotiation) {
24
            json (
25
                 Json {
26
                     ignoreUnknownKeys = true
27
                     isLenient = true
28
                     prettyPrint = true
29
                 }
30
            )
31
32
        configureRouting()
33
    }
34
35
    DatabaseFactory.kt
    package suai. vladcto.db
36
37
    import java.sql.Connection
38
39
    import java.sql.DriverManager
```

```
40
41
    object DatabaseFactory {
        private var connection: Connection? = null
42
43
        private fun connect() {
44
45
            connection = DriverManager.getConnection(
46
                 "idbc:mysgl://localhost:3306/conference",
47
                 "root",
48
49
            )
50
        }
51
52
        fun getConnection(): Connection {
53
            val connection = this.connection
54
            if (connection == null || connection.isClosed) {
55
                 connect()
56
            return this . connection!!
57
58
        }
59
    Routing.kt
60
61
    package suai. vladcto. routing
62
    import io.ktor.http.HttpStatusCode
63
    import io.ktor.server.application.Application
64
65
    import io.ktor.server.request.receive
    import io.ktor.server.response.respond
66
67
    import io.ktor.server.routing.get
68
    import io.ktor.server.routing.post
    import io.ktor.server.routing.routing
69
    import suai.vladcto.services.auth.AuthService
70
    import suai. vladcto. services. city. CityService
71
72
    import suai. vladcto. services. conference. Conference Request
73
    import suai. vladcto. services. conference. Conference Service
74
    import suai. vladcto. services. conference.
       ConferenceUpdateRequest
75
    import suai.vladcto.services.topic.TopicService
76
77
    fun Application.configureRouting() {
78
        val authService = AuthService()
        val topicService = TopicService()
79
```

```
80
         val cityService = CityService()
         val conferenceService = ConferenceService(
81
82
             topicService,
             cityService,
83
84
         )
85
86
         routing {
             post("/authorize") {
87
                 val params = call.request.queryParameters
88
89
                  val username = params["name"]
                 val password = params["password"]
90
91
                  if (username.isNullOrBlank() || password.
                    isNullOrBlank()) {
92
                      call.respond(HttpStatusCode.BadRequest, "
                         Invalid user data")
93
                      return@post
94
                 }
95
96
                 val result = authService.registerUser(username,
                    password)
97
98
                  result
99
                      .onSuccess { token ->
100
                          call.respond(HttpStatusCode.Created,
                             mapOf("token" to token))
101
                      }
102
                      .onFailure { error ->
103
                          call.respond(HttpStatusCode.Conflict,
                             error.message ?: "Registration failed
                             ")
104
                      }
105
             }
106
107
             get("/conferences search options") {
                 val searchOptions = conferenceService.
108
                     getSearchOptions()
109
                  call.respond(HttpStatusCode.OK, searchOptions)
110
             }
111
112
             get("/conferences_list") {
                  val name = call.request.queryParameters["name"]
113
```

```
114
                 val cityId = call.request.queryParameters["cityId
                    "]?.toIntOrNull()
                 val topicId = call.request.queryParameters["
115
                    topicId"]?.toIntOrNull()
116
                 val startDate = call.request.queryParameters["
                    startDate"]
117
                 val endDate = call.request.queryParameters["
                    endDate"]
                 val description = call.request.queryParameters["
118
                    description"]
                 val contacts = call.request.queryParameters["
119
                    contacts"]
120
                 val imageUrl = call.request.queryParameters["
                    imageUrl"]
121
122
                 val filterRequest = ConferenceRequest(
                     name = name ?: "",
123
124
                      cityId = cityId ?: 0,
125
                      topicId = topicId ?: 0,
                      startDate = startDate ?: "",
126
                      endDate = endDate ?: "",
127
                      description = description ?: "",
128
129
                      contacts = contacts ?: "",
                      imageUrl = imageUrl ?: ""
130
131
                 )
132
133
                 val conferences = conferenceService.
                    getConferences(filterRequest)
134
                 call.respond(HttpStatusCode.OK, conferences)
135
136
             }
137
             postAuthorized(authService, "/create conference") {
138
                username ->
139
                 val conferenceRequest = call.receive <
                    ConferenceRequest >()
140
141
                 if (conferenceRequest.name.isBlank() ||
                    conferenceRequest.cityId <= 0 ||
                    conferenceRequest.topicId <= 0 ||
```

```
142
                      conferenceRequest.startDate.isBlank() ||
                         conferenceRequest.endDate.isBlank()
143
                  ) {
144
                      call.respond(HttpStatusCode.BadRequest, "
                         Missing or invalid conference data")
145
                      return@postAuthorized
146
                  }
147
148
                  val result = conferenceService.createConference(
149
                      name = conferenceRequest.name,
150
                      cityId = conferenceRequest.cityId,
151
                      topicId = conferenceRequest.topicId,
152
                      authorUsername = username,
153
                      startDate = conferenceRequest.startDate,
154
                      endDate = conferenceRequest.endDate,
                      description = conferenceRequest.description,
155
156
                      contacts = conferenceRequest.contacts,
                      imageUrl = conferenceRequest.imageUrl,
157
158
                  )
159
160
                  result.onSuccess {
161
                      call.respond(
162
                          HttpStatusCode. Created,
163
                          "Conference created successfully with ID:
                              $it"
164
                      )
                  }.onFailure { error ->
165
                      call.respond(
166
                          HttpStatusCode. Conflict,
167
                          error.message ?: "Error creating
168
                             conference"
169
                      )
170
                  }
171
             }
172
             getAuthorized(authService, "/conference/{id}") {
173
                username ->
174
                  val conferenceId = call.parameters["id"]?.
                     toIntOrNull()
175
                  if (conferenceId == null) {
```

```
176
                      call.respond(HttpStatusCode.BadRequest, "
                         Invalid conference ID")
177
                      return@getAuthorized
178
                  }
179
180
                  val result = conferenceService.
                     getConferenceDetails(conferenceId, username)
181
182
                  result.onSuccess { conferenceDetails ->
183
                      call.respond(HttpStatusCode.OK,
                         conference Details)
184
                  }.onFailure { error ->
185
                      call.respond(
186
                          HttpStatusCode. NotFound,
187
                          error.message?: "Conference not found"
188
                      )
189
                  }
190
             }
191
192
             putAuthorized(authService, "/conference/{id}") {
                username ->
193
                  val conferenceId = call.parameters["id"]?.
                    toIntOrNull()
194
                  if (conferenceId == null) {
195
                      call.respond(HttpStatusCode.BadRequest, "
                         Invalid conference ID")
196
                      return@putAuthorized
197
                  }
198
                  val updateRequest = call.receive <
199
                     ConferenceUpdateRequest >()
200
201
                  val result = conferenceService.updateConference(
202
                      conferenceId = conferenceId.
203
                      username = username,
204
                      name = updateRequest.name,
205
                      cityId = updateRequest.cityId,
206
                      topicId = updateRequest.topicId,
207
                      startDate = updateRequest.startDate,
208
                      endDate = updateRequest.endDate,
209
                      description = updateRequest.description,
```

```
210
                      contacts = updateRequest.contacts,
211
                      imageUrl = updateRequest.imageUrl,
212
                  )
213
214
                  result.onSuccess {
215
                      call.respond(HttpStatusCode.OK, "Conference
                         updated successfully")
                  }.onFailure { error ->
216
217
                      call.respond(
218
                          HttpStatusCode. Conflict,
219
                          error.message ?: "Error updating
                             conference"
220
                      )
221
                  }
222
             }
223
224
             postAuthorized(authService, "/delete_conference/{id
                }") { username ->
225
                  val conferenceId = call.parameters["id"]?.
                     toIntOrNull()
226
                  if (conferenceId == null) {
                      call.respond(HttpStatusCode.BadRequest, "
227
                         Invalid conference ID")
                      return@postAuthorized
228
229
                  }
230
231
                  val result = conferenceService.deleteConference(
                     conferenceId, username)
232
233
                  result.onSuccess {
234
                      call.respond(HttpStatusCode.OK, "Conference
                         deleted successfully")
235
                  }.onFailure { error ->
236
                      call.respond(
237
                          HttpStatusCode. Conflict,
                          error.message ?: "Error deleting
238
                             conference"
239
                      )
240
                 }
241
             }
242
```

```
243
244
245
     AuthorizedRouting.kt
246
     package suai. vladcto. routing
247
248
     import io.ktor.http.HttpStatusCode
     import io.ktor.server.application.ApplicationCall
249
250
     import io.ktor.server.response.respond
251
     import io.ktor.server.routing.Route
252
     import io.ktor.server.routing.RoutingContext
253
     import io.ktor.server.routing.get
254
     import io.ktor.server.routing.post
255
     import io.ktor.server.routing.put
256
     import suai. vladcto. services. auth. AuthService
257
258
     private suspend fun authorizeAndHandle(
         call: ApplicationCall, authService: AuthService, handler:
259
             suspend (String) -> Unit
260
     ) {
261
         val username = authService.verifyToken(call.request.
            headers ["Authorization"])
         if (username == null) {
262
263
             call.respond(HttpStatusCode.Unauthorized, "Invalid
                token")
264
         } else {
265
             handler (username)
266
         }
267
268
269
270
     fun Route.getAuthorized(
271
         authService: AuthService,
272
         path: String,
273
         handler: suspend RoutingContext.(String) -> Unit
274
     ) {
275
         get(path) {
276
             authorizeAndHandle(call, authService) { username ->
277
                  handler (username)
278
             }
279
         }
280
```

```
281
282
     fun Route.postAuthorized(
283
         authService: AuthService,
284
         path: String,
285
         handler: suspend RoutingContext.(String) -> Unit
286
     ) {
287
         post(path) {
              authorizeAndHandle(call, authService) { username ->
288
289
                  handler (username)
290
291
         }
292
293
294
     fun Route.putAuthorized(
295
         authService: AuthService,
296
         path: String,
297
         handler: suspend RoutingContext.(String) -> Unit
298
     ) {
299
         put(path) {
300
              authorizeAndHandle(call, authService) { username ->
301
                  handler (username)
302
             }
303
         }
304
305
306
     CityService.kt
307
     package suai. vladcto. services. city
308
309
     import suai. vladcto.db. DatabaseFactory
     import java.sql.SQLException
310
311
312
     class CityService {
313
314
         fun getCityNameById(cityId: Int): String? {
              val query = "SELECT name FROM Cities WHERE id = ?"
315
316
317
              return try {
318
                  val connection = DatabaseFactory.getConnection()
319
320
                  connection.prepareStatement(query).use {
                     preparedStatement ->
```

```
321
                       preparedStatement.setInt(1, cityId)
322
                      val resultSet = preparedStatement.
                         executeQuery()
323
324
                       if (resultSet.next()) {
325
                           resultSet.getString("name")
326
                       } else {
327
                           null
328
                      }
329
330
              } catch (e: SQLException) {
331
                  null
332
              }
333
         }
334
335
         fun getAllCities(): List < City > {
336
              try {
                  val query = "SELECT id, name FROM Cities"
337
338
                  val cities = mutableListOf < City > ()
339
                  val connection = DatabaseFactory.getConnection()
340
341
                  connection.createStatement().use { statement ->
342
                      val resultSet = statement.executeQuery(query)
343
344
                      while (resultSet.next()) {
345
                           val id = resultSet.getInt("id")
                           val name = resultSet.getString("name")
346
347
                           cities.add(City(id, name))
348
                      }
349
350
                  return cities
351
              } catch (e: SQLException) {
352
                  return listOf()
353
              }
354
         }
355
356
357
     City.kt
358
     package suai. vladcto. services. city
359
360
     import kotlinx.serialization.Serializable
```

```
361
362
     @Serializable
     data class City(val id: Int, val name: String)
363
364
     ConferenceUpdateRequest.kt
365
     package suai. vladcto. services. conference
366
367
     import kotlinx. serialization. Serializable
368
369
370
     @Serializable
371
     data class ConferenceUpdateRequest(
372
         val name: String?,
373
         val cityId: Int?,
374
         val topicId: Int?,
375
         val startDate: String?,
         val endDate: String?,
376
377
         val description: String?,
378
         val contacts: String?,
379
         val imageUrl: String?,
380
381
382
     ConferenceResponse.kt
     package suai.vladcto.services.conference
383
384
385
     import kotlinx. serialization. Serializable
386
387
     @Serializable
388
     data class ConferenceShortResponse (
389
         val id: Int,
390
         val name: String,
391
         val city: String,
392
         val topic: String,
393
         val startDate: String,
394
         val endDate: String,
395
     )
396
     @Serializable
397
398
     data class ConferenceDetailResponse (
399
         val id: Int,
400
         val name: String,
401
         val city: String,
```

```
402
         val topic: String,
403
         val startDate: String,
         val endDate: String,
404
405
         val description: String,
406
         val contacts: String,
407
         val canRedact: Boolean,
408
409
     Conference Service. kt
410
     package suai. vladcto. services. conference
411
412
     import suai. vladcto.db. DatabaseFactory
     import suai.vladcto.services.city.CityService
413
414
     import suai.vladcto.services.topic.TopicService
415
     import java.sql.ResultSet
416
     import java.sql.SQLException
417
418
     class ConferenceService(
419
         private val topic Service: Topic Service,
420
         private val cityService: CityService,
421
422
         fun createConference(
423
             name: String,
424
             cityId: Int,
425
             topicId: Int,
426
             authorUsername: String,
427
             startDate: String,
428
             endDate: String,
429
             description: String = "",
             contacts: String = "",
430
             imageUrl: String = ""
431
         ): Result < Int >  {
432
433
             return try {
434
                  val connection = DatabaseFactory.getConnection()
435
                  val sql = """
436
                      INSERT INTO Conferences (
                          name, city id, topic id, author username,
437
                               start date, end date, description,
                             contacts, image url
438
                      ) VALUES (
                           '$name', $cityId, $topicId, '
439
                             $authorUsername', '$startDate', '
```

```
$endDate', '$description', '$contacts
                              ', '$imageUrl'
440
                      )
                  ,, ,, ,,
441
442
443
                  connection.createStatement().use { statement ->
444
                       statement.executeUpdate(sql, java.sql.
                          Statement . RETURN GENERATED KEYS)
445
446
                       val generatedKeys = statement.generatedKeys
447
                       if (generatedKeys.next()) {
448
                           Result.success (generated Keys.getInt(1))
449
                       } else {
450
                           Result. failure (SQLException ("Failed to
                              retrieve conference ID"))
451
                      }
452
                  }
453
              } catch (e: SQLException) {
454
                  Result. failure (e)
455
              }
456
         }
457
458
459
         fun getConferences(filter: ConferenceRequest): List <</pre>
            ConferenceShortResponse > {
460
              val queryBuilder = StringBuilder ("SELECT * FROM
                 Conferences WHERE 1=1")
461
              if (filter.name.isNotEmpty()) {
462
                  queryBuilder.append(" AND name ILIKE '%${filter.
463
                     name \ \%'")
464
              }
              if (filter.cityId != 0) {
465
466
                  queryBuilder.append(" AND city id = ${filter.
                     cityId \}")
467
468
              if (filter.topicId != 0) {
                  queryBuilder.append(" AND topic id = ${filter.
469
                     topicId \}")
470
471
              if (filter.startDate.isNotEmpty()) {
```

```
472
                  queryBuilder.append(" AND start_date >= '${ filter
                     . startDate \ '")
              }
473
474
              if (filter.endDate.isNotEmpty()) {
                  queryBuilder.append(" AND end date <= '${ filter.
475
                     endDate \ '")
476
              }
477
478
              return try {
479
                  val connection = DatabaseFactory.getConnection()
480
481
                  connection.createStatement().use { statement ->
482
                      val resultSet = statement.executeQuery(
                         queryBuilder.toString())
483
                      val conferences = mutableListOf <
                         ConferenceShortResponse >()
484
485
                      while (resultSet.next()) {
486
                           conferences.add(mapRowToConference(
                              resultSet))
487
                      }
488
489
                      conferences
490
491
              } catch (e: SQLException) {
492
                  emptyList()
493
              }
494
         }
495
         fun getSearchOptions(): ConferenceSearchOptions {
496
497
              val cities = cityService.getAllCities()
498
              val topics = topicService.getAllTopics()
499
500
              return ConferenceSearchOptions(
501
                  cities = cities,
502
                  topics = topics,
503
              )
504
         }
505
506
         fun updateConference(
              conferenceId: Int,
507
```

```
508
             username: String,
509
             name: String? = null,
510
             cityId: Int? = null,
511
             topicId: Int? = null,
512
             startDate: String? = null,
             endDate: String? = null,
513
514
             description: String? = null,
515
             contacts: String? = null,
516
             imageUrl: String? = null
         ): Result < Boolean > {
517
518
             return try {
519
                  if (!isUserAuthorOfConference(conferenceId,
                    username)) {
520
                      return Result. failure (Security Exception ("User
                          $username is not the author of the
                         conference."))
521
                 }
522
523
                 val connection = DatabaseFactory.getConnection()
524
                  val updateQuery = StringBuilder("UPDATE
                    Conferences SET ")
525
526
                 val updates = mutableListOf < String >()
527
                 name?.let { updates.add("name = '$it'") }
                  cityId?.let { updates.add("city id = $it") }
528
529
                  topicId?.let { updates.add("topic id = $it") }
                 startDate?.let { updates.add("start_date = '$it
530
                     '") }
                 endDate?.let { updates.add("end date = '$it'") }
531
                  description ?. let { updates . add("description = '
532
                     $it '") }
533
                  contacts?.let { updates.add("contacts = '$it'") }
534
                 imageUrl?.let { updates.add("image url = '$it'")
                    }
535
536
                  if (updates.isEmpty()) {
537
                      return Result.failure(
                         IllegalArgumentException("No fields to
                         update"))
538
                  }
539
```

```
540
                  updateQuery.append(updates.joinToString(", "))
                 updateQuery.append(" WHERE id = $conferenceId")
541
542
543
                  // Debug: print the SQL query
544
                  println("Executing SQL: $updateQuery")
545
546
                  connection.createStatement().use { statement ->
547
                      val rowsAffected = statement.executeUpdate(
                         updateQuery.toString())
548
                      if (rowsAffected > 0) {
549
                          Result. success (true)
550
                      } else {
551
                          Result. failure (SQLException ("No
                             conference found with id:
                             $conferenceId"))
552
                      }
553
                  }
             } catch (e: SQLException) {
554
555
                  Result. failure (e)
556
             }
557
         }
558
559
         fun deleteConference(conferenceId: Int, username: String)
            : Result < Boolean > {
             return try {
560
561
                  if (!isUserAuthorOfConference(conferenceId,
                    username)) {
562
                      return Result. failure (SQLException ("User is
                         not the author of the conference"))
563
                  }
564
565
                 val connection = DatabaseFactory.getConnection()
566
                  val sql = "DELETE FROM Conferences WHERE id = ?"
567
568
                 connection.prepareStatement(sql).use {
                     preparedStatement ->
569
                      preparedStatement.setInt(1, conferenceId)
570
                      val rowsAffected = preparedStatement.
                         executeUpdate()
571
572
                      if (rowsAffected > 0) {
```

```
573
                          Result.success(true)
574
                      } else {
575
                          Result. failure (SQLException ("Could not
                              delete conference with id:
                              $conferenceId"))
576
                      }
577
578
             } catch (e: SQLException) {
                  Result. failure (e)
579
580
581
         }
582
583
584
         fun getConferenceDetails (
585
             conferenceId: Int, username: String
         ): Result < Conference Detail Response > {
586
587
             return try {
588
                  val connection = DatabaseFactory.getConnection()
589
590
                  val sql = "SELECT * FROM Conferences WHERE id =
                     ?"
591
592
                  connection.prepareStatement(sql).use {
                     preparedStatement ->
593
                      preparedStatement.setInt(1, conferenceId)
594
595
                      val resultSet = preparedStatement.
                         executeQuery()
596
                      if (resultSet.next()) {
                          val conferenceDetail =
597
                             Conference Detail Response (
598
                               id = resultSet.getInt("id"),
599
                               name = resultSet.getString("name"),
                               city = cityService.getCityNameById(
600
                                  resultSet.getInt("city_id")) ?:
601
                               topic = topic Service . getTopicNameById
                                  (resultSet.getInt("topic id")) ?:
602
                               startDate = resultSet.getString("
                                  start date"),
```

```
603
                               endDate = resultSet.getString("
                                  end date"),
604
                               description = resultSet.getString("
                                  description"),
605
                               contacts = resultSet.getString("
                                  contacts"),
606
                               canRedact = isUserAuthorOfConference(
                                  conferenceId, username)
607
                          )
608
                          Result.success (conferenceDetail)
609
                      } else {
610
                          Result. failure (SQLException ("No
                             conference found with id:
                             $conferenceId"))
611
                      }
612
613
             } catch (e: SQLException) {
614
                  Result. failure (e)
615
616
         }
617
618
         private fun is User Author Of Conference (conference Id: Int,
            username: String): Boolean {
619
              return try {
620
                  val connection = DatabaseFactory.getConnection()
621
                  val sql = "SELECT author username FROM
                     Conferences WHERE id = ?"
622
623
                  connection.prepareStatement(sql).use {
                     preparedStatement ->
624
                      preparedStatement.setInt(1, conferenceId)
625
626
                      val resultSet = preparedStatement.
                         executeQuery()
                      if (resultSet.next()) {
627
                          val authorUsername = resultSet.getString
628
                             ("author username")
                          authorUsername == username
629
630
                      } else {
631
                          false
632
```

```
633
634
             } catch (e: SQLException) {
                  false
635
636
             }
637
         }
638
639
         private fun mapRowToConference(rs: ResultSet):
            ConferenceShortResponse {
640
              return ConferenceShortResponse(
641
                  id = rs.getInt("id"),
642
                  name = rs.getString("name"),
                  city = cityService.getCityNameById(rs.getInt("
643
                     city_id")) ?: "",
                  topic = topicService.getTopicNameById(rs.getInt("
644
                     topic_id")) ?: "",
                  startDate = rs.getString("start_date"),
645
646
                  endDate = rs.getString("end date"),
647
             )
         }
648
649
650
651
     ConferenceRequest.kt
652
     package suai. vladcto. services. conference
653
654
     import kotlinx. serialization. Serializable
655
656
     @Serializable
657
     data class ConferenceRequest(
658
         val name: String,
659
         val cityId: Int,
         val topicId: Int,
660
661
         val startDate: String,
662
         val endDate: String,
663
         val description: String,
         val contacts: String,
664
         val imageUrl: String,
665
666
     )
667
     Conferenc Search Options.kt
668
669
     package suai. vladcto. services. conference
670
```

```
671
     import kotlinx. serialization. Serializable
     import suai.vladcto.services.city.City
672
     import suai. vladcto. services. topic. Topic
673
674
675
     @ Serializable
676
     data class ConferenceSearchOptions(
677
         val cities: List < City >,
         val topics: List < Topic >
678
679
680
     AuthService.kt
     package suai. vladcto. services. auth
681
682
683
     import suai. vladcto.db. DatabaseFactory
684
     import java. security. Message Digest
685
     import java.sql.Connection
     import java.util.UUID
686
687
688
     class AuthService {
689
690
         fun registerUser(username: String, password: String):
            Result < String > {
691
              val connection = DatabaseFactory.getConnection()
692
693
             val existingToken = getTokenIfUserExist(connection,
                username)
694
             if (existingToken != null) {
                  return Result.success(existingToken)
695
696
             }
697
698
              val passwordHash = hashPassword(password)
699
              val token = generateToken()
              insertUser(connection, username, passwordHash, token)
700
701
702
              return Result.success(token)
703
         }
704
705
         fun verifyToken(token: String?): String? {
706
             if (token == null) return null
707
708
              val connection = DatabaseFactory.getConnection()
```

```
709
             val query = "SELECT username FROM Users WHERE token =
710
             connection.prepareStatement(query).use {
                preparedStatement ->
711
                 preparedStatement.setString(1, token)
712
                 val resultSet = preparedStatement.executeQuery()
713
                 return if (resultSet.next()) {
714
                      resultSet.getString("username")
715
                 } else {
716
                      null
717
                 }
718
             }
719
         }
720
721
         private fun getTokenIfUserExist(connection: Connection,
            username: String): String? {
722
             val query = "SELECT token FROM Users WHERE username =
                 ?"
723
             connection.prepareStatement(query).use {
                preparedStatement ->
724
                 preparedStatement.setString(1, username)
                 val resultSet = preparedStatement.executeQuery()
725
726
                 return if (resultSet.next()) {
                      resultSet.getString("token")
727
728
                 } else {
729
                      n u 11
730
                 }
731
             }
732
         }
733
734
         private fun insertUser(
735
             connection: Connection, username: String,
                passwordHash: String, token: String
736
         ) {
737
             val query = "INSERT INTO Users (username,
                password hash, token) VALUES (?, ?, ?)"
738
             connection.prepareStatement(query).use {
                preparedStatement ->
739
                 preparedStatement.setString(1, username)
740
                 preparedStatement.setString(2, passwordHash)
                 preparedStatement.setString(3, token)
741
```

```
742
                  preparedStatement . executeUpdate()
             }
743
744
         }
745
746
         private fun generateToken(): String = UUID.randomUUID().
            toString()
747
748
         private fun hashPassword(password: String): String =
             MessageDigest.getInstance("SHA-256")
749
750
                  . digest (password . toByteArray ())
                  .joinToString("") { "%02x".format(it) }
751
752
753
754
     Topic.kt
755
     package suai. vladcto. services. topic
756
757
     import kotlinx. serialization. Serializable
758
759
     @ Serializable
760
     data class Topic (val id: Int, val name: String)
761
     Topic Service . kt
     package suai.vladcto.services.topic
762
763
764
     import suai. vladcto.db. DatabaseFactory
     import java.sql.SQLException
765
766
767
     class TopicService {
768
769
         fun getTopicNameById(topicId: Int): String? {
770
             val query = "SELECT name FROM Topics WHERE id = ?"
771
772
             return try {
                  val connection = DatabaseFactory.getConnection()
773
774
                  connection.prepareStatement(query).use {
775
                     preparedStatement ->
776
                      preparedStatement.setInt(1, topicId)
777
                      val resultSet = preparedStatement.
                         executeQuery()
778
779
                      if (resultSet.next()) {
```

```
780
                           resultSet.getString("name")
781
                      } else {
                           n u 11
782
783
                      }
784
785
              } catch (e: SQLException) {
786
                  n u 11
787
              }
788
         }
789
790
         fun getAllTopics(): List < Topic > {
791
              try {
792
                  val query = "SELECT id, name FROM Topics"
793
                  val topics = mutableListOf < Topic >()
794
                  val connection = DatabaseFactory.getConnection()
795
                  connection.createStatement().use { statement ->
796
                       val resultSet = statement.executeQuery(query)
797
                      while (resultSet.next()) {
798
                           val id = resultSet.getInt("id")
799
                           val name = resultSet.getString("name")
800
                           topics.add(Topic(id, name))
801
                      }
802
803
                  return topics
804
              } catch (e: SQLException) {
805
                  return listOf()
806
              }
807
         }
808
809
810
811
     app providers.dart
812
     import 'package: conference app/features/app/
        navigation manager.dart';
     import 'package: conference app/features/di/auth providers.
813
        dart';
814
     import 'package: dio/dio.dart';
815
     import 'package: flutter/cupertino.dart';
     import 'package: flutter riverpod / flutter riverpod . dart ';
816
817
818
     sealed class AppProviders {
```

```
819
       static final dioBaseOptions = Provider(
820
         ( ) => BaseOptions(baseUrl: 'http://10.0.2.2:8080'),
821
       );
822
823
       static final dio = Provider(
824
         (ref) => Dio(
825
           ref.watch(dioBaseOptions),
         )..interceptors.add(
826
827
             ref.watch(
828
               AuthProviders.interceptor,
829
             ),
830
           ),
831
       );
832
833
       static final navigatorKey = Provider(
         ( ) => GlobalKey < NavigatorState > (),
834
835
       );
836
837
       static final navigationManager = Provider(
838
         (ref) => NavigationManager(ref.watch(navigatorKey)),
839
       );
840
841
842
     auth providers.dart
     import 'package: conference app/features/auth/data/auth api.
843
        dart';
844
     import 'package: conference app/features/auth/logic/%20network
        /auth interceptor.dart';
     import 'package: conference app/features/auth/logic/manager/
845
        auth manager.dart';
846
     import 'package: conference app/features/auth/logic/state/
        token holder.dart';
     import 'package: conference_app/features/di/app_providers.dart
847
848
     import 'package: dio/dio.dart';
     import 'package: flutter riverpod / flutter riverpod . dart ';
849
850
851
     sealed class AuthProviders {
       static final tokenProvider = Provider(
852
853
         ( ) => TokenStateHolder(),
854
       );
```

```
855
856
       static final dio = Provider(
857
         (ref) => Dio(
858
           ref.watch(AppProviders.dioBaseOptions),
859
         ),
860
       );
861
       static final api = Provider(
862
         (ref) => AuthApi(
863
864
           ref.watch(dio),
865
         ),
       );
866
867
868
       static final manager = Provider(
869
         (ref) => AuthManager(
           ref.watch(_api),
870
871
           ref.watch(tokenProvider),
872
           ref.watch(AppProviders.navigationManager),
873
         ),
874
       );
875
       static final interceptor = Provider(
876
877
         (ref) => AuthInterceptor(
878
           ref.watch(tokenProvider),
879
         ),
880
       );
881
882
883
     conference providers.dart
884
     import 'package: conference app/features/conferences/data/
        conference api.dart';
885
     import 'package: conference app/features/conferences/logic/
        manager/conference_detailed manager.dart';
886
     import 'package: conference app/features/di/app providers.dart
     import 'package: flutter riverpod / flutter riverpod . dart ';
887
888
     import '../conferences/data/models/conference search options.
889
        dart ':
890
     import '../conferences/data/models/conference_short_response.
        dart';
```

```
891
     import '../conferences/logic/manager/conference list manager.
892
     import '../conferences/logic/state/conference list notifier.
        dart';
893
     import '../conferences/logic/state/
        conference search options notifier.dart';
894
     sealed class ConferenceProviders {
895
       static final api = Provider(
896
897
         (ref) => ConferenceApi(
898
           ref.watch(AppProviders.dio),
899
         ),
900
       );
901
902
       static final searchOptionsProvider = StateNotifierProvider <
903
           Conference Search Options Notifier,
              ConferenceSearchOptions?>(
         (ref) => ConferenceSearchOptionsNotifier(),
904
905
       );
906
       static final listProvider = StateNotifierProvider <
907
          ConferenceListNotifier.
908
           List < Conference Short Response >?>(
909
         (ref) => ConferenceListNotifier(),
910
       );
911
912
       static final conferenceListManager = Provider(
         (ref) => ConferenceListManager(
913
914
           ref.watch(api),
915
           ref.watch(AppProviders.navigationManager),
916
           ref.watch(searchOptionsProvider.notifier),
917
           ref.watch(listProvider.notifier),
918
         ),
919
       );
920
921
       static final conferenceDetailedManager = Provider(
922
         (ref) => ConferenceDetailedManager(
923
           ref.watch(api),
924
           ref.watch(AppProviders.navigationManager),
925
           ref.watch(listProvider.notifier),
926
         ),
```

```
927
      );
928
929
930
     navigation manager.dart
931
     import 'package: flutter/material.dart';
932
933
     import '../conferences/ui/conference detail screen.dart';
     import '../conferences/ui/conference list.dart';
934
     import '../conferences/ui/create conference screen.dart';
935
936
937
     class NavigationManager {
       final GlobalKey < Navigator State > _navigator Key;
938
939
       NavigationManager(this._navigatorKey);
940
941
942
       void pop() => navigatorKey.currentState?.pop();
943
944
       void openConferenceList() {
945
         navigatorKey.currentState?.pushReplacement(
946
           MaterialPageRoute (
             builder: (context) => const ConferenceListScreen(),
947
948
           ),
949
         );
950
       }
951
952
       void openDetailedConference(int conferenceId) {
         _navigatorKey.currentState?.push(
953
954
           MaterialPageRoute (
955
             builder: (context) =>
956
                  ConferenceDetailScreen (conferenceId: conferenceId
                    ),
957
           ),
958
         );
959
       }
960
       void openCreateConferenceScreen() {
961
962
         navigatorKey.currentState?.push(
963
           MaterialPageRoute(builder: (context) => const
              CreateConferenceScreen()),
964
         );
965
```

```
966
967
        void showErrorDialog() {
968
          showDialog(
969
            context: navigatorKey.currentContext!,
970
            builder: (context) {
971
              return AlertDialog(
972
                title: const Text('Error'),
                content: const Text('An error occurred. Please try
973
                   again later.'),
974
                actions: [
975
                  TextButton (
976
                     onPressed: () => Navigator.of(context).pop(),
977
                    child: const Text('OK'),
978
                  ),
979
                ],
980
              );
981
            },
982
          );
983
984
985
986
     auth screen.dart
987
     import 'package: conference app/features/di/auth providers.
         dart';
988
     import 'package: flutter/material.dart';
989
     import 'package: flutter riverpod / flutter riverpod . dart ';
990
991
     class LoginForm extends ConsumerStatefulWidget {
992
        const LoginForm({super.key});
993
994
        @override
995
        ConsumerState < LoginForm > createState() => LoginFormState()
996
997
998
     class LoginFormState extends ConsumerState < LoginForm > {
999
        final TextEditingController usernameController =
           TextEditingController();
        final TextEditingController passwordController =
1000
           TextEditingController();
1001
```

```
1002
        @override
1003
        Widget build (BuildContext context) {
1004
          final authManager = ref.watch(AuthProviders.manager);
1005
1006
          return Scaffold (
            appBar: AppBar(
1007
1008
               title: const Text('Login'),
1009
            ),
            body: Center (
1010
1011
               child: Padding(
                 padding: const EdgeInsets.all(16.0),
1012
1013
                 child: Column(
1014
                   mainAxisSize: MainAxisSize.min,
1015
                   children: [
1016
                     TextField(
1017
                       controller: _usernameController,
1018
                       decoration: const InputDecoration(
1019
                         labelText: 'Username',
1020
                         border: OutlineInputBorder(),
1021
                       ),
1022
                     ),
1023
                     const SizedBox (height: 16),
1024
                     TextField(
1025
                       controller: _passwordController,
1026
                       decoration: const InputDecoration(
1027
                         labelText: 'Password',
1028
                         border: OutlineInputBorder(),
1029
                       ),
1030
                       obscureText: true,
1031
                     ),
1032
                     const SizedBox (height: 24),
1033
                     ElevatedButton (
                       onPressed: () => authManager.login(
1034
1035
                         usernameController.text.trim(),
                         _passwordController.text.trim(),
1036
1037
                       ),
1038
                       style: ElevatedButton.styleFrom(
1039
                         padding:
                              const EdgeInsets.symmetric(horizontal:
1040
                                 32, vertical: 12),
1041
```

```
1042
                        child: const Text('Login'),
1043
                     ),
1044
                   ],
1045
                 ),
1046
              ),
1047
            ),
1048
          );
1049
        }
1050
1051
        @override
1052
        void dispose() {
1053
          usernameController.dispose();
1054
          passwordController.dispose();
1055
          super.dispose();
1056
        }
1057
      }
1058
1059
      logic
1060
      import 'package: conference app/features/auth/logic/state/
         token holder.dart';
      import 'package: dio/dio.dart';
1061
1062
1063
      class AuthInterceptor extends Interceptor {
        final TokenGetter tokenGetter;
1064
1065
1066
        AuthInterceptor(this._tokenGetter);
1067
        @override
1068
1069
        void onRequest(RequestOptions options,
           RequestInterceptorHandler handler) {
          final token = _tokenGetter.token;
1070
1071
          handler.next(
1072
            options..headers['Authorization'] = token,
1073
          );
1074
        }
1075
      }
1076
1077
      token holder.dart
1078
      abstract interface class TokenGetter {
1079
        String? get token;
1080
```

```
1081
1082
      class TokenStateHolder implements TokenGetter {
1083
        @override
1084
        String? token;
1085
     }
1086
1087
      auth manager. dart
      import 'package: conference app/features/app/
1088
         navigation_manager.dart';
1089
      import 'package: conference app/features/auth/data/auth api.
1090
      import 'package: conference app/features/auth/logic/state/
         token holder.dart';
1091
1092
      class AuthManager {
1093
        final AuthApi api;
1094
        final TokenStateHolder tokenStateHolder;
1095
        final NavigationManager navigationManager;
1096
1097
        AuthManager (
1098
          this. api,
1099
          this. tokenStateHolder,
1100
          this. navigationManager,
1101
        );
1102
1103
        Future < void > login (String username, String password) async
           {
1104
          try {
            final token = await api.authorize(username, password);
1105
1106
            tokenStateHolder.token = token;
            navigationManager.openConferenceList();
1107
1108
          } on Object {
1109
            navigationManager.showErrorDialog();
1110
          }
1111
        }
1112
1113
1114
      auth api.dart
1115
      import 'package: dio/dio.dart';
1116
1117
      class AuthApi {
```

```
1118
        final Dio dio;
1119
1120
        AuthApi(this. dio);
1121
1122
        Future < String > authorize (String username, String password)
          final response = await _dio.post('/authorize',
1123
             queryParameters: {
            'name': username,
1124
1125
            'password': password,
1126
          });
1127
1128
          return response.data['token'];
1129
        }
1130
     }
1131
1132
      conference list.dart
1133
     import 'package: conference app/features/conferences/data/
         models / topic . dart ';
     import 'package: conference app/features/conferences/ui/
1134
         widgets/conference card.dart';
      import 'package: conference app/features/di/
1135
         conference providers.dart';
1136
     import 'package: flutter/material.dart';
     import 'package: flutter riverpod / flutter riverpod . dart ';
1137
1138
1139
     import '../ data/models/city.dart';
     import '../logic/manager/conference list manager.dart';
1140
1141
1142
      class ConferenceListScreen extends ConsumerStatefulWidget {
1143
        const ConferenceListScreen({super.key});
1144
1145
        @override
1146
        ConsumerState < ConferenceListScreen > createState() =>
1147
            ConferenceListScreenState();
1148
1149
      class ConferenceListScreenState extends ConsumerState <
1150
         ConferenceListScreen > {
1151
        late ConferenceListManager _conferenceListManager;
        final _nameController = TextEditingController();
1152
```

```
String? nameFilter;
1153
        int? _cityFilter;
1154
1155
        int? topicFilter;
1156
1157
        @override
1158
        void initState() {
1159
          super.initState();
1160
          conferenceListManager =
1161
              ref.read(ConferenceProviders.conferenceListManager);
1162
          WidgetsBinding.instance.addPostFrameCallback(( ) {
            conferenceListManager.fetch();
1163
1164
          });
1165
        }
1166
1167
        @override
1168
        Widget build (BuildContext context) {
1169
          final searchOptions = ref.watch(ConferenceProviders.
             searchOptionsProvider);
1170
          final conferenceList = ref.watch(ConferenceProviders.
             listProvider);
1171
1172
          return Scaffold (
            appBar: AppBar(title: const Text('Conferences')),
1173
1174
            floating Action Button: Floating Action Button (
1175
              onPressed: () {
1176
                conferenceListManager.openCreateConferenceScreen()
1177
              },
              child: const Icon(Icons.add),
1178
1179
            ),
            body: Column(
1180
1181
              children: [
1182
                Padding (
1183
                   padding: const EdgeInsets.all(16.0),
1184
                   child: Column(
1185
                     children: [
1186
                       buildTextInput(
1187
                         'Name',
                         (value) => setState(() => nameFilter =
1188
                            value),
1189
```

```
1190
                        if (searchOptions != null)
1191
                          Row(
1192
                            children: [
1193
                               Expanded (
1194
                                 child: buildDropdownInput(
1195
                                   'City',
1196
                                   searchOptions.cities.cast < City? >().
                                      firstWhere (
1197
                                          (city) => city?.id ==
                                             cityFilter,
1198
                                          orElse: () => null,
1199
                                        ),
1200
                                   searchOptions.cities,
1201
                                   (value) => value.name,
1202
                                   (value) \Rightarrow setState(() \Rightarrow
                                      cityFilter = value?.id),
1203
                                 ),
1204
                               ),
1205
                               const SizedBox (width: 16),
1206
                               Expanded (
1207
                                 child: buildDropdownInput(
1208
                                   'Topic',
1209
                                   searchOptions.topics.cast<Topic?>()
                                      . firstWhere (
                                          (topic) => topic?.id ==
1210
                                             topicFilter,
1211
                                          orElse: () => null,
1212
                                        ),
1213
                                   searchOptions.topics,
1214
                                   (value) => value.name,
1215
                                   (value) => setState(() =>
                                      topicFilter = value?.id),
1216
                                 ),
1217
                              ),
1218
                            ],
1219
                          ),
1220
                        Row(
1221
                          children: [
1222
                            ElevatedButton (
1223
                               onPressed: () {
                                 conferenceListManager.updateSearch(
1224
```

```
1225
                                  name: nameFilter,
                                  cityId: _cityFilter,
1226
1227
                                  topicId: _topicFilter,
1228
                                );
1229
                              },
1230
                              child: const Text('Apply Filters'),
1231
1232
                            const SizedBox (width: 16),
1233
                            ElevatedButton (
1234
                              onPressed: () {
1235
                                setState(() {
1236
                                  nameFilter = null;
1237
                                  cityFilter = null;
1238
                                  topicFilter = null;
1239
                                  nameController.clear();
1240
                                });
1241
                                conferenceListManager.updateSearch(
1242
                                  name: null,
1243
                                  cityId: null,
1244
                                  topicId: null,
1245
                                );
1246
                              },
1247
                              child: const Text('Reset Filters'),
1248
                           ),
1249
                         ],
1250
                       ),
1251
                     ],
1252
                   ),
1253
                 ),
1254
                 Expanded (
1255
                   child: conferenceList == null
1256
                       ? const Center(child:
                          CircularProgressIndicator())
1257
                       : ListView.builder(
1258
                            itemCount: conferenceList.length,
1259
                            itemBuilder: (context, index) {
1260
                              return GestureDetector(
1261
                                onTap: () => conferenceListManager
1262
                                    . openDetailedScreen (
                                       conferenceList[index].id),
                                child:
1263
```

```
1264
                                     ConferenceCard (conference:
                                        conferenceList[index]),
1265
                              );
                            },
1266
1267
                          ),
1268
                 ),
1269
               ],
1270
            ),
1271
          );
1272
1273
1274
        @override
1275
        void dispose() {
1276
          super.dispose();
1277
          nameController.dispose();
1278
        }
1279
1280
        Widget buildTextInput(String label, ValueChanged < String >
           onChanged) {
1281
          return Padding(
1282
            padding: const EdgeInsets.symmetric(vertical: 8.0),
1283
             child: TextField(
1284
               controller: nameController,
1285
               decoration: InputDecoration (
1286
                 labelText: label,
1287
                 border: const OutlineInputBorder(),
1288
               ),
              onChanged: onChanged,
1289
1290
            ),
1291
          );
1292
        }
1293
1294
        Widget buildDropdownInput<T, R>(
1295
          String label,
          T? value,
1296
1297
          List <T> items,
          String Function(T) mapper,
1298
          ValueChanged <T?> onChanged,
1299
1300
1301
          return Padding(
1302
            padding: const EdgeInsets.symmetric(vertical: 8.0),
```

```
1303
            child: DropdownButtonFormField < T > (
1304
              value: value,
1305
              decoration: InputDecoration(
1306
                labelText: label,
1307
                border: const OutlineInputBorder(),
1308
              ),
1309
              items: items
1310
                   . map (
                     (item) => DropdownMenuItem<T>(
1311
1312
                       value: item,
1313
                       child: Text(mapper(item)),
1314
                     ),
1315
                   )
1316
                   .toList(),
              onChanged: onChanged,
1317
1318
            ),
1319
          );
1320
        }
1321
1322
1323
      conference detail screen.dart
      import 'package: conference app/features/conferences/data/
1324
         models/conference detail response.dart';
1325
      import 'package: conference app/features/di/
         conference providers.dart';
1326
      import 'package: flutter/material.dart';
1327
      import 'package: flutter riverpod / flutter riverpod . dart ';
1328
1329
      import '../ data/models/conference updating request.dart';
1330
      import '../logic/manager/conference detailed manager.dart';
1331
1332
      class ConferenceDetailScreen extends ConsumerStatefulWidget {
1333
        final int conferenceId;
1334
1335
        const ConferenceDetailScreen({super.key, required this.
           conferenceId });
1336
1337
        @override
1338
        ConsumerState < ConferenceDetailScreen > createState() =>
1339
            ConferenceDetailScreenState();
1340
```

```
1341
      class ConferenceDetailScreenState
1342
1343
          extends ConsumerState < ConferenceDetailScreen > {
1344
        late ConferenceDetailedManager conferenceDetailedManager;
1345
        late Future < Conference Detail Response >
           conferenceDetailFuture;
        final TextEditingController nameController =
1346
           TextEditingController();
1347
1348
        @override
1349
        void initState() {
          super.initState();
1350
1351
          conferenceDetailedManager =
1352
              ref.read(ConferenceProviders.
                 conferenceDetailedManager);
1353
          conferenceDetailFuture =
1354
              conferenceDetailedManager.getDetailedConference(
                 widget.conferenceId);
1355
1356
1357
        @override
1358
        Widget build (BuildContext context) {
1359
          return Scaffold (
            appBar: AppBar(title: const Text('Conference Details'))
1360
1361
            body: FutureBuilder < ConferenceDetailResponse > (
1362
              future: conferenceDetailFuture,
1363
              builder: (context, snapshot) {
1364
                if (snapshot.connectionState == ConnectionState.
                   waiting) {
                  return const Center(child:
1365
                     CircularProgressIndicator());
1366
1367
                if (snapshot.hasError | | !snapshot.hasData) {
1368
                  return const Center(
                     child: Text('Error loading conference details')
1369
1370
                  );
1371
1372
1373
                final conference = snapshot.data!;
```

```
1374
                 _nameController.text = conference.name;
1375
1376
                return Padding(
1377
                   padding: const EdgeInsets.all(16.0),
1378
                   child: Column(
1379
                     crossAxisAlignment: CrossAxisAlignment.start,
1380
                     children: [
1381
                       if (conference.canRedact)
1382
                         TextField(
                           enabled: conference.canRedact,
1383
1384
                           controller: _nameController,
1385
                           decoration: const InputDecoration(
1386
                                labelText: 'Name', border:
                                   OutlineInputBorder()),
1387
                         )
                       e l s e
1388
1389
                         Text('Name: ${conference.name}',
1390
                              style: Theme.of(context).textTheme.
                                bodyLarge),
1391
                       const SizedBox (height: 8),
1392
                       Text('City: ${conference.city}'),
                       Text('Topic: ${conference.topic}'),
1393
1394
                       const SizedBox(height: 8),
1395
                       Text('Start Date: ${conference.startDate}'),
1396
                       Text('End Date: ${conference.endDate}'),
1397
                       const SizedBox (height: 16),
1398
                       Text('Description: ${conference.description}
                          }'),
1399
                       Text('Contacts: ${conference.contacts}'),
1400
                       if (conference.canRedact) ...[
1401
                         const SizedBox (height: 16),
1402
                         Row(
1403
                           mainAxisAlignment: MainAxisAlignment.
                              spaceBetween,
                           children: [
1404
1405
                             ElevatedButton (
1406
                                onPressed: () async {
1407
                                  await conferenceDetailedManager.
                                     updateConference(
1408
                                    conference.id,
                                    Conference Updating Request (
1409
```

```
1410
                                       name: nameController.text,
1411
                                     ),
                                   );
1412
1413
                                 },
1414
                                 child: const Text('Update'),
1415
                              ),
                              ElevatedButton (
1416
1417
                                 onPressed: () async {
1418
                                   await conferenceDetailedManager
1419
                                       . deleteConference (conference.id
1420
                                   // Optionally, navigate back or
                                      show a confirmation
1421
                                 },
1422
                                 style: ElevatedButton.styleFrom(
1423
                                   foregroundColor: Colors.red,
1424
                                 ),
1425
                                 child: const Text('Delete'),
1426
                              ),
1427
                            ],
1428
                          ),
1429
                        ],
1430
                     ],
1431
                   ),
1432
                 );
1433
               },
1434
1435
          );
1436
1437
1438
        @override
1439
        void dispose() {
1440
          _nameController.dispose();
1441
          super.dispose();
1442
        }
1443
      }
1444
1445
      create conference screen.dart
      import 'package: conference app/features/conferences/data/
1446
         models/conference_request.dart';
```

```
import 'package: conference app/features/di/
1447
         conference providers.dart';
1448
     import 'package: flutter/material.dart';
1449
      import 'package: flutter riverpod / flutter riverpod . dart ';
1450
1451
      class CreateConferenceScreen extends ConsumerStatefulWidget {
1452
        const CreateConferenceScreen({super.key});
1453
1454
        @override
        ConsumerState < CreateConferenceScreen > createState() =>
1455
1456
            CreateConferenceScreenState();
1457
1458
1459
      class CreateConferenceScreenState
1460
          extends ConsumerState < CreateConferenceScreen > {
1461
        final TextEditingController nameController =
           TextEditingController();
1462
        final TextEditingController descriptionController =
           TextEditingController();
1463
        final TextEditingController _contactsController =
           TextEditingController();
        final TextEditingController _imageUrlController =
1464
           TextEditingController();
1465
        String? _selectedCity;
1466
        String? selectedTopic;
1467
1468
        DateTime? _selectedStartDate;
        DateTime? selectedEndDate;
1469
1470
1471
        @override
1472
        Widget build (BuildContext context) {
1473
          final searchOptions = ref.watch(ConferenceProviders.
             searchOptionsProvider);
          final conferenceListManager =
1474
1475
              ref.watch(ConferenceProviders.conferenceListManager);
1476
1477
          return Scaffold (
1478
            appBar: AppBar(title: const Text('Create Conference')),
1479
            body: Padding(
              padding: const EdgeInsets.all(16.0),
1480
1481
              child: ListView(
```

```
1482
                children: [
1483
                  buildTextInput('Name', nameController),
1484
                  buildTextInput('Description',
                     descriptionController),
                  _buildTextInput('Contacts', _contactsController),
1485
                  _buildDatePicker(context, 'Start Date',
1486
                     selectedStartDate, (date) {
                    setState(() => _selectedStartDate = date);
1487
1488
                  }),
                  buildDatePicker(context, 'End Date',
1489
                     selectedEndDate, (date) {
                    setState(() => selectedEndDate = date);
1490
1491
                  }),
1492
                  // buildTextInput('Image URL',
                     _imageUrlController),
1493
                  if (searchOptions != null) ...[
1494
                    buildDropdownInput(
1495
                         'City', searchOptions.cities.map((e) => e.
                           name).toList(),
1496
                         (value) {
1497
                       setState(() => selectedCity = value);
1498
                    }),
1499
                    buildDropdownInput(
1500
                         'Topic', searchOptions.topics.map((e) => e.
                           name).toList(),
1501
                         (value) {
1502
                      setState(() => selectedTopic = value);
1503
                    }),
1504
                  ],
1505
                  const SizedBox (height: 16),
1506
                  ElevatedButton (
1507
                    onPressed: () async {
1508
                       if ( selectedCity == null ||
1509
                           selectedTopic == null ||
1510
                           selectedStartDate == null ||
1511
                           selectedEndDate == null) {
1512
                         return;
1513
                       }
1514
1515
                       final request = ConferenceRequest(
1516
                         name: nameController.text,
```

```
cityId: searchOptions?.cities
1517
                                  . firstWhere ((e) => e.name ==
1518
                                     selectedCity)
1519
                                  .id ??
1520
                             -1,
1521
                         topicId: searchOptions?.topics
                                  .firstWhere((e) => e.name ==
1522
                                     selectedTopic)
1523
                                  .id ??
                             -1,
1524
                         startDate: _selectedStartDate!.
1525
                            toIso8601String(),
                         endDate: selectedEndDate!.toIso8601String
1526
                            (),
                         description: _descriptionController.text,
1527
1528
                         contacts: _contactsController.text,
1529
                         imageUrl: imageUrlController.text,
1530
                       );
1531
1532
                       await conferenceListManager.createConference(
                          request);
1533
                     },
1534
                     child: const Text('Create Conference'),
1535
                  ),
1536
                ],
1537
              ),
1538
            ),
1539
          );
1540
1541
1542
        Widget buildTextInput(String label, TextEditingController
           controller) {
1543
          return Padding(
1544
            padding: const EdgeInsets.symmetric(vertical: 8.0),
            child: TextField(
1545
1546
              decoration: InputDecoration(
1547
                labelText: label,
                border: const OutlineInputBorder(),
1548
1549
              ),
              controller: controller,
1550
1551
            ),
```

```
1552
          );
        }
1553
1554
1555
        Widget buildDropdownInput(
1556
            String label, List < String > items, ValueChanged < String?>
                onChanged) {
          return Padding(
1557
1558
            padding: const EdgeInsets.symmetric(vertical: 8.0),
            child: DropdownButtonFormField < String >(
1559
1560
              decoration: InputDecoration(
                 labelText: label,
1561
1562
                 border: const OutlineInputBorder(),
1563
              ),
              items: items
1564
                   .map((item) =>
1565
1566
                       DropdownMenuItem < String > (value: item, child:
                          Text(item)))
1567
                   .toList(),
              onChanged: onChanged,
1568
1569
            ),
1570
          );
1571
        }
1572
1573
        Widget buildDatePicker(BuildContext context, String label,
            DateTime? selectedDate, ValueChanged < DateTime? >
1574
               onDateSelected) {
1575
          return Padding(
            padding: const EdgeInsets.symmetric(vertical: 8.0),
1576
            child: InkWell(
1577
              onTap: () async {
1578
1579
                 DateTime? pickedDate = await showDatePicker(
1580
                   context: context,
1581
                   initialDate: selectedDate ?? DateTime.now(),
1582
                   firstDate: DateTime(2000),
1583
                   lastDate: DateTime(2100),
1584
                 );
1585
                 onDateSelected (pickedDate);
1586
              child: InputDecorator(
1587
1588
                 decoration: InputDecoration(
1589
                   labelText: label,
```

```
1590
                  border: const OutlineInputBorder(),
1591
                ),
1592
                child: Text(selectedDate != null
1593
                     ? selectedDate.toLocal().toString().split(' ')
                        [0]
                     : 'Select Date'),
1594
1595
              ),
1596
            ),
1597
          );
1598
1599
1600
        @override
1601
        void dispose() {
1602
          nameController.dispose();
          descriptionController.dispose();
1603
1604
          contactsController.dispose();
1605
          imageUrlController.dispose();
1606
          super.dispose();
1607
        }
1608
1609
     conference card.dart
1610
1611
     import 'package: flutter/material.dart';
1612
1613
     import '../../ data/models/conference short response.dart';
1614
1615
      class ConferenceCard extends StatelessWidget {
1616
        final ConferenceShortResponse conference;
1617
1618
        const ConferenceCard({super.key, required this.conference})
1619
1620
        @override
1621
        Widget build (BuildContext context) => Card(
1622
              elevation: 6,
1623
              shape: RoundedRectangleBorder(
1624
                borderRadius: BorderRadius.circular(12),
1625
              ),
1626
              margin: const EdgeInsets.symmetric(vertical: 8,
                 horizontal: 16),
1627
              child: Padding(
```

```
1628
                 padding: const EdgeInsets.all(16),
1629
                 child: Column(
1630
                   crossAxisAlignment: CrossAxisAlignment.start,
1631
                   children: [
1632
                     Text(
1633
                        conference.name,
1634
                        style: Theme.of(context).textTheme.
                           titleMedium?.copyWith(
1635
                              fontWeight: FontWeight.bold,
1636
                              color: Colors.black45,
1637
                            ),
1638
                     ),
1639
                     const SizedBox (height: 12),
1640
                     Row (
1641
                        children: [
                          const Icon (Icons. location city, size: 16,
1642
                             color: Colors.black45),
1643
                          const SizedBox(width: 4),
1644
                          Text(
1645
                            conference.city,
                            style: Theme. of(context).textTheme.
1646
                               bodyMedium,
1647
                         ),
1648
                       ],
1649
                     ),
1650
                     Row(
1651
                        children: [
                          const Icon(Icons.topic, size: 16, color:
1652
                             Colors.black45),
                          const SizedBox (width: 4),
1653
1654
                          Text(
1655
                            conference.topic,
1656
                            style: Theme.of(context).textTheme.
                               bodyMedium,
1657
                         ),
1658
                       ],
1659
                     ),
1660
                     const SizedBox (height: 12),
                     Divider (color: Colors.grey[300]),
1661
1662
                     const SizedBox (height: 8),
1663
                     Row(
```

```
1664
                        children: [
                          const Icon(Icons.date range, size: 16,
1665
                             color: Colors.black45),
                          const SizedBox(width: 4),
1666
1667
                         Text(
1668
                            'Start: ${conference.startDate}',
                            style: Theme. of(context).textTheme.
1669
                               bodyMedium,
1670
                         ),
1671
                       ],
1672
                     ),
1673
                     Row(
1674
                       children: [
1675
                          const Icon (Icons.date range, size: 16,
                             color: Colors.black45),
                          const SizedBox (width: 4),
1676
1677
                          Text(
1678
                            'End: ${conference.endDate}',
                            style: Theme.of(context).textTheme.
1679
                               bodyMedium,
1680
                         ),
1681
                       ],
1682
                     ),
1683
                   ],
1684
                ),
1685
              ),
1686
            );
1687
1688
1689
      conference search options notifier.dart
1690
      import 'package: flutter riverpod / flutter riverpod . dart ';
1691
1692
      import '../../ data/models/conference search options.dart';
1693
1694
      class ConferenceSearchOptionsNotifier
          extends StateNotifier < Conference Search Options? > {
1695
1696
        ConferenceSearchOptionsNotifier(): super(null);
1697
1698
        void updateSearchOptions (ConferenceSearchOptions? options)
1699
          state = options;
```

```
1700
1701
1702
     conference list notifier.dart
1703
     import 'package: flutter riverpod / flutter riverpod . dart ';
1704
1705
     import '../../ data/models/conference short response.dart';
1706
1707
      class ConferenceListNotifier
1708
          extends StateNotifier < List < ConferenceShortResponse > ?> {
1709
        ConferenceListNotifier() : super(null);
1710
1711
        void updateConferenceList(List < ConferenceShortResponse >?
           conferenceList) {
1712
          state = conferenceList;
1713
        }
1714
1715
        void removeConference(int conferenceId) {
1716
          state = state?.where((item) => item.id != conferenceId).
             toList();
1717
       }
1718
1719
1720
     conference list manager.dart
1721
     import 'package: conference app/features/app/
         navigation manager.dart';
     import 'package: conference_app / features / conferences / data /
1722
         conference api.dart';
     import 'package: conference app/features/conferences/data/
1723
         models/conference request.dart';
1724
1725
     import '../state/conference list notifier.dart';
1726
     import '.. / state / conference search options notifier.dart';
1727
1728
      class ConferenceListManager {
        final ConferenceApi api;
1729
1730
        final NavigationManager navigationManager;
1731
        final ConferenceSearchOptionsNotifier
           conference Search Options Notifier;
        final ConferenceListNotifier conferenceListNotifier;
1732
1733
        ConferenceListManager(
1734
```

```
1735
          this. api,
          this. navigationManager,
1736
1737
          this. conferenceSearchOptionsNotifier,
1738
          this. conferenceListNotifier,
1739
        );
1740
1741
        Future < void > fetch() async {
1742
          try {
            final options = await api.getSearchOptions();
1743
1744
            conferenceSearchOptionsNotifier.updateSearchOptions(
               options);
            final list = await _api.getConferencesList();
1745
1746
            conferenceListNotifier.updateConferenceList(list);
1747
          } on Object {
1748
            navigationManager.showErrorDialog();
1749
            rethrow;
1750
          }
        }
1751
1752
1753
        Future < void > updateSearch({int? cityId, int? topicId,
           String? name \}) async {
          final list = await api.getConferencesList(
1754
1755
            cityId: cityId,
1756
            topicId: topicId,
1757
            name: name,
1758
          );
1759
          conferenceListNotifier.updateConferenceList(list);
1760
        }
1761
        void openDetailedScreen(int conferenceId) =>
1762
            navigationManager.openDetailedConference(conferenceId)
1763
1764
1765
        void openCreateConferenceScreen() =>
1766
            _navigationManager.openCreateConferenceScreen();
1767
1768
        Future < void > createConference (ConferenceRequest request)
           async {
1769
          try {
1770
            await _api.createConference(request);
1771
            navigationManager.pop();
```

```
1772
          } on Object {
1773
            navigationManager.showErrorDialog();
1774
          }
1775
        }
1776
     }
1777
1778
     conference detailed manager.dart
     import '../../app/navigation_manager.dart';
1779
     import '../../ data/conference api.dart';
1780
     import '../../ data/models/conference_detail response.dart';
1781
1782
     import '../../ data/models/conference_updating request.dart';
     import '../state/conference list notifier.dart';
1783
1784
1785
      class ConferenceDetailedManager {
1786
        final ConferenceApi api;
1787
        final NavigationManager navigationManager;
1788
        final ConferenceListNotifier conferenceListNotifier;
1789
1790
        ConferenceDetailedManager(
1791
          this._api,
1792
          this. navigationManager,
          this. conferenceListNotifier,
1793
1794
        );
1795
1796
        Future < Conference Detail Response > getDetailed Conference (int
           conferenceId) =>
1797
            api.getConferenceDetails(conferenceId);
1798
1799
        Future < void > deleteConference(int conferenceId) async {
1800
          try {
1801
            await api.deleteConference(conferenceId);
1802
            conferenceListNotifier.removeConference(conferenceId);
1803
          } on Object {
1804
            navigationManager.showErrorDialog();
1805
          }
1806
        }
1807
1808
        Future < void > updateConference (
1809
          int conferenceId,
1810
          ConferenceUpdatingRequest request,
1811
        ) async {
```

```
1812
          try {
           await _api.updateConference(conferenceId, request);
1813
         } on Object {
1814
1815
            navigationManager.showErrorDialog();
1816
1817
       }
1818
     }
1819
1820
     conference updating request.dart
1821
     import 'package: freezed annotation / freezed annotation.dart';
1822
1823
     part 'conference updating request. freezed.dart';
1824
     part 'conference updating request.g.dart';
1825
1826
     @freezed
1827
     class ConferenceUpdatingRequest with
        $ConferenceUpdatingRequest {
1828
       const factory ConferenceUpdatingRequest({
1829
          String? name,
          int? cityId,
1830
1831
          int? topicId,
1832
          String? startDate,
1833
          String? endDate,
1834
          String? description,
1835
          String? contacts,
1836
          String? imageUrl,
       }) = ConferenceUpdatingRequest;
1837
1838
1839
       factory ConferenceUpdatingRequest.fromJson(Map<String,
          Object?> json) =>
           _$ConferenceUpdatingRequestFromJson(json);
1840
1841
1842
1843
     conference search options.g.dart
     // GENERATED CODE - DO NOT MODIFY BY HAND
1844
1845
1846
     part of 'conference search options.dart';
1847
     //
1848
        *******************************
```

```
// JsonSerializableGenerator
1849
1850
     //
        ********************************
1851
1852
     $ConferenceSearchOptionsImpl \begin { equation } \begin {
         gathered \ Conference Search Options ImplFrom Json (
1853
              Map < String , dynamic > ison ) =>
          $ConferenceSearchOptionsImpl(
1854
1855
            cities: (json['cities'] as List < dynamic >)
                .map((e) => City.fromJson(e as Map < String, dynamic
1856
                   >))
1857
                .toList(),
            topics: (json['topics'] as List < dynamic >)
1858
                .map((e) => Topic.fromJson(e as Map<String, dynamic
1859
                   >))
1860
                .toList(),
1861
          );
1862
     Map < String, dynamic > _ \ end { gathered } \ end { equation }
1863
         Conference Search Options Impl To Json (
              $ConferenceSearchOptionsImpl instance) =>
1864
1865
          <String, dynamic>{
1866
            'cities': instance.cities,
            'topics': instance.topics,
1867
1868
          };
1869
1870
      conference detail response.dart
1871
      import 'package: freezed annotation / freezed annotation.dart';
1872
1873
      part 'conference detail response. freezed.dart';
1874
      part 'conference detail response.g.dart';
1875
1876
     @freezed
1877
      class ConferenceDetailResponse with
         $ConferenceDetailResponse {
1878
        const factory ConferenceDetailResponse({
1879
          required int id,
1880
          required String name,
1881
          required String city,
1882
          required String topic,
```

```
1883
         required String startDate,
1884
         required String endDate,
1885
         required String description,
1886
         required String contacts,
1887
         required bool canRedact,
1888
       }) = ConferenceDetailResponse;
1889
1890
       factory ConferenceDetailResponse.fromJson(Map<String,
          dynamic > ison ) =>
1891
           $ConferenceDetailResponseFromJson(json);
1892
1893
1894
     conference updating request. freezed. dart
1895
     // coverage:ignore-file
     // GENERATED CODE - DO NOT MODIFY BY HAND
1896
     // ignore_for file: type=lint
1897
1898
     // ignore for file: unused element, deprecated member use,
        deprecated member use from same package,
        use function type syntax for parameters, unnecessary const
        , avoid_init_to_null,
        invalid override different default values named,
        prefer expression function bodies, annotate overrides,
        invalid annotation target, unnecessary question mark
1899
1900
     part of 'conference updating request.dart';
1901
1902
     //
        ********************************
     // FreezedGenerator
1903
1904
     //
        ************************************
1905
1906
     T $identity <T>(T value) => value;
1907
1908
     final privateConstructorUsedError = UnsupportedError(
1909
         'It seems like you constructed your class using 'MyClass.
            () '. This constructor is only meant to be used by
            freezed and you are not supposed to need it nor use it
            .\nPlease check the documentation here for more
```

```
information: https://github.com/rrousselGit/freezed#
            adding-getters-and-methods-to-our-models');
1910
1911
     ConferenceUpdatingRequest $ConferenceUpdatingRequestFromJson
1912
         Map < String, dynamic > json) {
1913
        return ConferenceUpdatingRequest.fromJson(json);
1914
1915
1916
     /// @nodoc
1917
     mixin $ConferenceUpdatingRequest {
        String? get name => throw privateConstructorUsedError;
1918
1919
        int? get cityId => throw privateConstructorUsedError;
        int? get topicId => throw _privateConstructorUsedError;
1920
1921
        String? get startDate => throw _privateConstructorUsedError
1922
        String? get endDate => throw privateConstructorUsedError;
1923
        String? get description => throw
          privateConstructorUsedError;
1924
        String? get contacts => throw _privateConstructorUsedError;
        String? get imageUrl => throw privateConstructorUsedError;
1925
1926
1927
       Map < String, dynamic > to Json() => throw
          privateConstructorUsedError;
        @JsonKey(ignore: true)
1928
1929
        $ConferenceUpdatingRequestCopyWith <
          ConferenceUpdatingRequest > get copyWith =>
1930
            throw privateConstructorUsedError;
1931
1932
1933
     /// @nodoc
1934
     abstract class $ConferenceUpdatingRequestCopyWith <$Res> {
1935
        factory $ConferenceUpdatingRequestCopyWith(
          Conference Updating Request value,
1936
                $Res Function(ConferenceUpdatingRequest) then) =
            $ConferenceUpdatingRequestCopyWithImpl <$Res,
1937
               ConferenceUpdatingRequest >;
1938
        @useResult
1939
        $Res call(
1940
            {String? name,
1941
            int? cityId,
```

```
int? topicId,
1942
            String? startDate,
1943
1944
            String? endDate,
1945
            String? description,
1946
            String? contacts,
1947
            String? imageUrl });
1948
1949
1950
     /// @nodoc
1951
     class $ConferenceUpdatingRequestCopyWithImpl<$Res,</pre>
1952
              $Val extends ConferenceUpdatingRequest>
1953
          implements $ConferenceUpdatingRequestCopyWith <$Res> {
        $ConferenceUpdatingRequestCopyWithImpl(this._value, this.
1954
           then);
1955
1956
        // ignore: unused field
1957
        final $Val value;
1958
        // ignore: unused field
1959
        final $Res Function($Val) then;
1960
        @pragma('vm: prefer -inline')
1961
        @override
1962
1963
        $Res call({
1964
          Object? name = freezed,
1965
          Object? cityId = freezed,
1966
          Object? topicId = freezed,
1967
          Object? startDate = freezed,
          Object? endDate = freezed,
1968
          Object? description = freezed,
1969
1970
          Object? contacts = freezed,
          Object? imageUrl = freezed,
1971
1972
        }) {
1973
          return then (value.copyWith (
1974
            name: freezed == name
1975
                ? value.name
1976
                : name // ignore: cast nullable to non nullable
1977
                     as String?,
1978
            cityId: freezed == cityId
1979
                ? value.cityId
                : cityId // ignore: cast_nullable_to_non nullable
1980
1981
                     as int?,
```

```
1982
            topicId: freezed == topicId
                 ? value.topicId
1983
1984
                 : topicId // ignore: cast nullable to non nullable
1985
                     as int?,
1986
            startDate: freezed == startDate
1987
                 ? value.startDate
                 : startDate // ignore:
1988
                    cast_nullable_to_non_nullable
1989
                     as String?,
1990
            endDate: freezed == endDate
                 ? value.endDate
1991
1992
                 : endDate // ignore: cast nullable to non nullable
1993
                     as String?,
1994
            description: freezed == description
1995
                 ? value.description
1996
                 : description // ignore:
                    cast nullable to non nullable
1997
                     as String?,
1998
            contacts: freezed == contacts
1999
                 ? value.contacts
2000
                 : contacts // ignore: cast nullable to non nullable
2001
                     as String?,
2002
            imageUrl: freezed == imageUrl
2003
                 ? value.imageUrl
2004
                 : imageUrl // ignore: cast nullable to non nullable
2005
                     as String?,
          ) as $Val);
2006
2007
        }
2008
2009
2010
      /// @nodoc
2011
      abstract class \begin{equation}\begin{gathered}
         ConferenceUpdatingRequestImplCopyWith <$Res>
2012
          implements $ConferenceUpdatingRequestCopyWith <$Res> {
2013
        factory \real \end \{ gathered \real \end \{ equation \}
           ConferenceUpdatingRequestImplCopyWith(
2014
                 $ConferenceUpdatingRequestImpl value,
                 $Res Function( $ConferenceUpdatingRequestImpl) then
2015
2016
            __\begin { equation } \ begin { gathered }
               ConferenceUpdatingRequestImplCopyWithImpl <$Res>;
```

```
2017
        @override
2018
        @useResult
2019
        $Res call(
2020
            {String? name,
2021
            int? cityId,
2022
            int? topicId,
            String? startDate,
2023
2024
            String? endDate,
            String? description,
2025
            String? contacts.
2026
            String? imageUrl });
2027
2028
2029
2030
      /// @nodoc
      class \end{gathered}\end{equation}
2031
         ConferenceUpdatingRequestImplCopyWithImpl<$Res>
2032
          extends $ConferenceUpdatingRequestCopyWithImpl <$Res,
2033
              $ConferenceUpdatingRequestImpl>
2034
          implements \begin \{ equation \} \begin \{ gathered \}
             ConferenceUpdatingRequestImplCopyWith<$Res> {
        \end{gathered}\end{equation}
2035
           Conference Updating Request Impl Copy With Impl (
2036
            $ConferenceUpdatingRequestImpl value,
2037
            $Res Function( $ConferenceUpdatingRequestImpl) then)
            : super(_value, _then);
2038
2039
2040
        @pragma('vm: prefer -inline')
2041
        @override
2042
        $Res call({
          Object? name = freezed,
2043
          Object? cityId = freezed,
2044
2045
          Object? topicId = freezed,
2046
          Object? startDate = freezed,
2047
          Object? endDate = freezed,
2048
          Object? description = freezed,
          Object? contacts = freezed,
2049
2050
          Object? imageUrl = freezed,
2051
        }) {
          return then ( $ConferenceUpdatingRequestImpl(
2052
            name: freezed == name
2053
2054
                ? value.name
```

```
2055
                : name // ignore: cast nullable to non nullable
                     as String?,
2056
2057
            cityId: freezed == cityId
                ? value.cityId
2058
2059
                : cityId // ignore: cast nullable to non nullable
2060
                     as int?,
2061
            topicId: freezed == topicId
2062
                ? value.topicId
2063
                : topicId // ignore: cast nullable to non nullable
2064
                     as int?,
            startDate: freezed == startDate
2065
                ? value.startDate
2066
2067
                : startDate // ignore:
                   cast nullable to non nullable
2068
                    as String?,
            endDate: freezed == endDate
2069
2070
                ? value.endDate
2071
                : endDate // ignore: cast nullable to non nullable
2072
                     as String?,
2073
            description: freezed == description
2074
                ? value.description
2075
                : description // ignore:
                   cast nullable to non nullable
2076
                    as String?,
2077
            contacts: freezed == contacts
2078
                ? value.contacts
2079
                : contacts // ignore: cast nullable to non nullable
2080
                     as String?,
            imageUrl: freezed == imageUrl
2081
                ? value.imageUrl
2082
                : imageUrl // ignore: cast nullable to non nullable
2083
2084
                     as String?,
2085
          ));
2086
        }
2087
      }
2088
2089
      /// @nodoc
2090
      @JsonSerializable()
      class $ConferenceUpdatingRequestImpl implements
2091
         ConferenceUpdatingRequest {
        const $ConferenceUpdatingRequestImpl(
2092
```

```
2093
             {this.name,
2094
             this.cityId,
2095
             this.topicId,
2096
             this.startDate,
2097
             this . endDate,
2098
             this. description,
2099
             this.contacts,
2100
             this.imageUrl});
2101
2102
        factory $ConferenceUpdatingRequestImpl.fromJson(Map<String
           , dynamic > ison) =>
2103
            \begin { equation } \ begin { gathered }
                ConferenceUpdatingRequestImplFromJson(json);
2104
2105
        @override
2106
        final String? name;
2107
        @override
2108
        final int? cityId;
2109
        @override
2110
        final int? topicId;
2111
        @override
2112
        final String? startDate;
2113
        @override
2114
        final String? endDate;
2115
        @override
2116
        final String? description;
2117
        @override
2118
        final String? contacts;
2119
        @override
        final String? imageUrl;
2120
2121
2122
        @override
2123
        String to String() {
2124
          return 'ConferenceUpdatingRequest(name: $name, cityId:
              $cityId , topicId: $topicId , startDate: $startDate ,
             endDate: $endDate, description: $description, contacts
             : $contacts, imageUrl: $imageUrl)';
2125
        }
2126
2127
        @override
2128
        bool operator ==(Object other) {
```

```
2129
          return identical (this, other)
              (other.runtimeType == runtimeType &&
2130
2131
                  other is $ConferenceUpdatingRequestImpl &&
2132
                  (identical(other.name, name) || other.name ==
                     name) &&
2133
                  (identical(other.cityId, cityId) || other.cityId
                     == cityId) &&
                  (identical(other.topicId, topicId) || other.
2134
                     topicId == topicId) &&
2135
                  (identical (other.startDate, startDate) ||
                       other.startDate == startDate) &&
2136
                  (identical(other.endDate, endDate) || other.
2137
                     endDate == endDate) &&
2138
                  (identical (other.description, description) |
2139
                       other.description == description) &&
2140
                  (identical (other.contacts, contacts) |
2141
                       other.contacts == contacts) &&
2142
                  (identical(other.imageUrl, imageUrl) ||
2143
                       other.imageUrl == imageUrl));
2144
        }
2145
2146
        @JsonKey(ignore: true)
2147
        @override
        int get hashCode => Object.hash(runtimeType, name, cityId,
2148
           topicId, startDate,
2149
            endDate, description, contacts, imageUrl);
2150
2151
        @JsonKey(ignore: true)
2152
        @override
        @pragma('vm: prefer -inline')
2153
        \end{gathered}\end{equation}
2154
           ConferenceUpdatingRequestImplCopyWith <
           $ConferenceUpdatingRequestImpl>
2155
            get copyWith => \begin{equation}\begin{gathered}
               ConferenceUpdatingRequestImplCopyWithImpl <
                $ConferenceUpdatingRequestImpl > (this, $identity);
2156
2157
2158
        @override
        Map < String , dynamic > to Json() {
2159
          return _\end{gathered}\end{equation}
2160
             ConferenceUpdatingRequestImplToJson(
```

```
2161
            this,
2162
          );
        }
2163
2164
      }
2165
2166
      abstract class ConferenceUpdatingRequest implements
         ConferenceUpdatingRequest {
        const factory ConferenceUpdatingRequest(
2167
            {final String? name,
2168
2169
            final int? cityId,
            final int? topicId,
2170
2171
            final String? startDate,
2172
            final String? endDate,
2173
            final String? description,
2174
            final String? contacts,
            final String? imageUrl }) =
2175
               $ConferenceUpdatingRequestImpl;
2176
2177
        factory ConferenceUpdatingRequest.fromJson(Map<String,
           dynamic > json) =
2178
            $ConferenceUpdatingRequestImpl.fromJson;
2179
2180
        @override
2181
        String? get name;
2182
        @override
2183
        int? get cityId;
2184
        @override
        int? get topicId;
2185
        @override
2186
        String? get startDate;
2187
2188
        @override
2189
        String? get endDate;
2190
        @override
2191
        String? get description;
        @override
2192
2193
        String? get contacts;
2194
        @override
2195
        String? get imageUrl;
2196
        @override
2197
        @JsonKey(ignore: true)
```

```
2198
       \begin { equation } \ begin { gathered }
           ConferenceUpdatingRequestImplCopyWith <
           $ConferenceUpdatingRequestImpl>
2199
            get copyWith => throw privateConstructorUsedError;
2200
2201
2202
      conference short response.dart
      import 'package: freezed annotation / freezed annotation.dart';
2203
2204
2205
      part 'conference short response. freezed.dart';
      part 'conference short response.g.dart';
2206
2207
2208
      @freezed
2209
      class ConferenceShortResponse with $ConferenceShortResponse
2210
        const factory ConferenceShortResponse({
2211
          required int id,
2212
          required String name,
2213
          required String city,
2214
          required String topic,
          required String startDate,
2215
          required String endDate,
2216
2217
        }) = ConferenceShortResponse;
2218
2219
        factory ConferenceShortResponse.fromJson(Map<String,
           dynamic > ison) =>
2220
            $ConferenceShortResponseFromJson(json);
2221
2222
      conference short response. freezed.dart
2223
2224
      // coverage:ignore-file
      // GENERATED CODE - DO NOT MODIFY BY HAND
2225
2226
      // ignore for file: type=lint
2227
      // ignore for file: unused element, deprecated member use,
         deprecated_member_use_from_same_package,
         use function type syntax for parameters, unnecessary const
         , avoid init to null,
         invalid override different default values named,
         prefer expression function bodies, annotate overrides,
         invalid_annotation_target, unnecessary_question_mark
2228
```

```
part of 'conference short response.dart';
2229
2230
     //
2231
       2232
     // FreezedGenerator
2233
       2234
2235
     T _\$identity <T>(T value) => value;
2236
2237
     final privateConstructorUsedError = UnsupportedError(
2238
         'It seems like you constructed your class using 'MyClass.
           () '. This constructor is only meant to be used by
           freezed and you are not supposed to need it nor use it
           .\nPlease check the documentation here for more
           information: https://github.com/rrousselGit/freezed#
           adding-getters-and-methods-to-our-models');
2239
2240
     ConferenceShortResponse $ConferenceShortResponseFromJson(
2241
         Map < String, dynamic > ison) {
2242
       return ConferenceShortResponse.fromJson(json);
2243
     }
2244
2245
     /// @nodoc
2246
     mixin $ConferenceShortResponse {
2247
       int get id => throw _privateConstructorUsedError;
2248
       String get name => throw _privateConstructorUsedError;
2249
       String get city => throw _privateConstructorUsedError;
2250
       String get topic => throw _privateConstructorUsedError;
2251
       String get startDate => throw privateConstructorUsedError;
2252
       String get endDate => throw privateConstructorUsedError;
2253
2254
       Map < String , dynamic > to Json() => throw
          privateConstructorUsedError;
2255
       @JsonKey(ignore: true)
       $ConferenceShortResponseCopyWith < ConferenceShortResponse >
2256
          get copyWith =>
           throw _privateConstructorUsedError;
2257
2258
```

```
2259
      /// @nodoc
2260
2261
      abstract class $ConferenceShortResponseCopyWith <$Res> {
2262
        factory $ConferenceShortResponseCopyWith(
           ConferenceShortResponse value,
2263
                 $Res Function(ConferenceShortResponse) then) =
2264
            $ConferenceShortResponseCopyWithImpl <$Res,
               ConferenceShortResponse >;
2265
        @useResult
2266
        $Res call(
2267
            {int id,
2268
            String name,
2269
            String city,
2270
            String topic,
2271
            String startDate,
2272
            String endDate \});
2273
      }
2274
2275
      /// @nodoc
2276
      class _$ConferenceShortResponseCopyWithImpl<$Res,</pre>
2277
               $Val extends ConferenceShortResponse>
          implements $ConferenceShortResponseCopyWith <$Res> {
2278
2279
        $ConferenceShortResponseCopyWithImpl(this. value, this.
           then);
2280
2281
        // ignore: unused field
2282
        final $Val value;
2283
        // ignore: unused field
        final $Res Function($Val) then;
2284
2285
2286
        @pragma('vm: prefer -inline')
2287
        @override
2288
        $Res call({
2289
          Object? id = null,
2290
          Object? name = null,
2291
          Object? city = null,
2292
          Object? topic = null,
2293
          Object? startDate = null,
2294
          Object? endDate = null,
2295
        }) {
2296
          return then (value.copyWith (
```

```
2297
            id: null == id
                ? value.id
2298
2299
                : id // ignore: cast nullable to non nullable
2300
                     as int,
2301
            name: null == name
2302
                ? value.name
2303
                : name // ignore: cast nullable to non nullable
2304
                     as String,
2305
            city: null == city
                ? value.city
2306
2307
                : city // ignore: cast_nullable_to_non_nullable
2308
                     as String,
2309
            topic: null == topic
2310
                ? value.topic
2311
                : topic // ignore: cast nullable to non nullable
2312
                     as String,
2313
            startDate: null == startDate
                ? value.startDate
2314
                : startDate // ignore:
2315
                   cast_nullable_to_non_nullable
2316
                     as String,
            endDate: null == endDate
2317
2318
                ? value.endDate
2319
                : endDate // ignore: cast nullable to non nullable
2320
                     as String,
2321
          ) as $Val);
2322
        }
2323
     }
2324
      /// @nodoc
2325
      abstract class \end{gathered}\end{equation}
2326
         ConferenceShortResponseImplCopyWith <$Res>
2327
          implements $ConferenceShortResponseCopyWith <$Res> {
2328
        factory \begin \equation \\ begin \{ gathered \}
           ConferenceShortResponseImplCopyWith(
                $ConferenceShortResponseImpl value,
2329
2330
                $Res Function( $ConferenceShortResponseImpl) then)
            \end{gathered}\end{equation}
2331
               ConferenceShortResponseImplCopyWithImpl<$Res>;
2332
        @override
```

```
2333
        @useResult
2334
        $Res call(
            {int id,
2335
2336
            String name,
2337
            String city,
            String topic,
2338
            String startDate,
2339
2340
            String endDate \});
2341
2342
2343
      /// @nodoc
      class \begin{equation}\begin{gathered}
2344
         ConferenceShortResponseImplCopyWithImpl<$Res>
2345
          extends $ConferenceShortResponseCopyWithImpl<$Res,
2346
              $ConferenceShortResponseImpl>
          implements _\end{gathered}\end{equation}
2347
             ConferenceShortResponseImplCopyWith <$Res> {
        \begin { equation } \ begin { gathered }
2348
           ConferenceShortResponseImplCopyWithImpl(
            _$ConferenceShortResponseImpl _value ,
2349
            $Res Function( $ConferenceShortResponseImpl) then)
2350
            : super( value, then);
2351
2352
2353
        @pragma('vm: prefer -inline')
        @override
2354
2355
        $Res call({
2356
          Object? id = null,
          Object? name = null,
2357
          Object? city = null,
2358
          Object? topic = null,
2359
          Object? startDate = null,
2360
2361
          Object? endDate = null,
2362
        }) {
2363
          return then ( $ConferenceShortResponseImpl(
2364
            id: null == id
2365
                 ? value.id
2366
                 : id // ignore: cast nullable to non nullable
2367
                     as int,
2368
            name: null == name
                 ? value.name
2369
2370
                 : name // ignore: cast nullable to non nullable
```

```
2371
                     as String,
            city: null == city
2372
2373
                ? value.city
2374
                : city // ignore: cast nullable to non nullable
2375
                     as String,
2376
            topic: null == topic
2377
                ? value.topic
2378
                : topic // ignore: cast nullable to non nullable
2379
                     as String,
2380
            startDate: null == startDate
                ? value.startDate
2381
                : startDate // ignore:
2382
                   cast nullable to non nullable
2383
                     as String,
            endDate: null == endDate
2384
2385
                ? value.endDate
2386
                : endDate // ignore: cast nullable to non nullable
2387
                     as String,
2388
          ));
2389
2390
      }
2391
2392
      /// @nodoc
2393
      @JsonSerializable()
2394
      class $ConferenceShortResponseImpl implements
         ConferenceShortResponse {
2395
        const $ConferenceShortResponseImpl(
2396
            {required this.id,
2397
            required this.name,
            required this.city,
2398
2399
            required this topic,
2400
            required this.startDate,
2401
            required this.endDate \});
2402
2403
        factory _$ConferenceShortResponseImpl.fromJson(Map<String,
           dynamic > ison) =>
2404
            \end{gathered}\end{equation}
               ConferenceShortResponseImplFromJson(json);
2405
2406
        @override
2407
        final int id;
```

```
2408
        @override
2409
        final String name;
2410
        @override
2411
        final String city;
2412
        @override
2413
        final String topic;
        @override
2414
2415
        final String startDate;
        @override
2416
        final String endDate;
2417
2418
        @override
2419
2420
        String to String() {
2421
          return 'ConferenceShortResponse(id: $id, name: $name,
             city: $city, topic: $topic, startDate: $startDate,
             endDate: $endDate)';
2422
        }
2423
2424
        @override
2425
        bool operator ==(Object other) {
2426
          return identical(this, other) ||
2427
              (other.runtimeType == runtimeType &&
2428
                   other is $ConferenceShortResponseImpl &&
2429
                  (identical(other.id, id) || other.id == id) &&
                   (identical(other.name, name) || other.name ==
2430
                     name) &&
2431
                  (identical(other.city, city) || other.city ==
                      city) &&
                   (identical(other.topic, topic) || other.topic ==
2432
                      topic) &&
                  (identical(other.startDate, startDate) ||
2433
2434
                       other.startDate == startDate) &&
2435
                  (identical (other.endDate, endDate) || other.
                     endDate == endDate));
2436
        }
2437
2438
        @JsonKey(ignore: true)
2439
        @override
        int get hashCode =>
2440
2441
            Object.hash(runtimeType, id, name, city, topic,
               startDate, endDate);
```

```
2442
2443
        @JsonKey(ignore: true)
2444
        @override
2445
        @pragma('vm: prefer -inline')
2446
        \begin { equation } \ begin { gathered }
           ConferenceShortResponseImplCopyWith <
           $ConferenceShortResponseImpl>
            get copyWith => \end{gathered}\end{equation}
2447
               ConferenceShortResponseImplCopyWithImpl <
2448
                 $ConferenceShortResponseImpl > (this, $identity);
2449
2450
        @override
2451
        Map < String , dynamic > toJson() {
2452
          return \begin { equation } \begin { gathered }
             ConferenceShortResponseImplToJson (
2453
            this,
2454
          );
        }
2455
2456
2457
2458
      abstract class ConferenceShortResponse implements
         ConferenceShortResponse {
2459
        const factory ConferenceShortResponse(
2460
            {required final int id,
2461
            required final String name,
2462
            required final String city,
2463
            required final String topic,
2464
            required final String startDate,
2465
            required final String endDate \}) =
                $ConferenceShortResponseImpl;
2466
2467
        factory ConferenceShortResponse.fromJson(Map<String,
           dynamic > ison) =
2468
            $ConferenceShortResponseImpl.fromJson;
2469
2470
        @override
2471
        int get id;
2472
        @override
        String get name;
2473
        @override
2474
2475
        String get city;
```

```
2476
       @override
2477
       String get topic;
2478
       @override
2479
       String get startDate;
2480
       @override
2481
       String get endDate;
2482
       @override
2483
       @JsonKey(ignore: true)
2484
       \end{gathered}\end{equation}
          ConferenceShortResponseImplCopyWith <
          $ConferenceShortResponseImpl>
2485
           get copyWith => throw privateConstructorUsedError;
2486
2487
2488
     topic.g.dart
     // GENERATED CODE - DO NOT MODIFY BY HAND
2489
2490
2491
     part of 'topic dart';
2492
2493
     //
        *************************
2494
     // JsonSerializableGenerator
2495
     //
        ********************************
2496
2497
     _$TopicImpl _\begin{equation}\begin{gathered}
        TopicImplFromJson(Map<String, dynamic> json) =>
        $TopicImpl(
2498
           id: (json['id'] as num).toInt(),
2499
           name: ison['name'] as String,
2500
         );
2501
2502
     Map < String, dynamic > _ \end { gathered } \end { equation }
        TopicImplToJson(_$TopicImpl instance) =>
2503
         <String, dynamic>{
2504
           'id': instance.id,
2505
           'name': instance.name,
2506
         };
2507
```

```
2508
     topic. freezed. dart
2509
     // coverage:ignore-file
2510
     // GENERATED CODE - DO NOT MODIFY BY HAND
2511
     // ignore for file: type=lint
2512
     // ignore for file: unused element, deprecated member use,
        deprecated member use from same package,
        use function type syntax for parameters, unnecessary const
        , avoid_init_to_null,
        invalid override different default values named,
        prefer_expression_function_bodies, annotate overrides,
        invalid_annotation_target, unnecessary_question_mark
2513
2514
     part of 'topic dart';
2515
     //
2516
        ****************************
     // FreezedGenerator
2517
2518
     //
        ************************************
2519
2520 T $identity <T>(T value) => value;
2521
2522
     final privateConstructorUsedError = UnsupportedError(
2523
         'It seems like you constructed your class using 'MyClass.
            () '. This constructor is only meant to be used by
            freezed and you are not supposed to need it nor use it
            .\nPlease check the documentation here for more
            information: https://github.com/rrousselGit/freezed#
            adding-getters-and-methods-to-our-models');
2524
2525
     Topic $TopicFromJson(Map < String, dynamic > json) {
2526
       return Topic.fromJson(json);
2527
     }
2528
2529
     /// @nodoc
2530
     mixin $Topic {
2531
       int get id => throw _privateConstructorUsedError;
2532
       String get name => throw _privateConstructorUsedError;
2533
```

```
2534
        Map < String, dynamic > to Json() => throw
           privateConstructorUsedError;
2535
        @JsonKey(ignore: true)
2536
        $TopicCopyWith < Topic > get copyWith => throw
           privateConstructorUsedError;
2537
     }
2538
2539
      /// @nodoc
      abstract class $TopicCopyWith < $Res > {
2540
2541
        factory $TopicCopyWith(Topic value, $Res Function(Topic)
2542
            $TopicCopyWithImpl<$Res, Topic>;
2543
        @useResult
2544
        $Res call({int id, String name});
2545
      }
2546
2547
      /// @nodoc
      class $TopicCopyWithImpl<$Res, $Val extends Topic>
2548
2549
          implements $TopicCopyWith < $Res > {
2550
        _$TopicCopyWithImpl(this._value, this._then);
2551
2552
        // ignore: unused field
2553
        final $Val value;
2554
        // ignore: unused field
2555
        final $Res Function($Val) then;
2556
2557
        @pragma('vm: prefer -inline')
2558
        @override
        $Res call({
2559
2560
          Object? id = null,
          Object? name = null,
2561
2562
        }) {
2563
          return then (value.copyWith (
2564
            id: null == id
2565
                ? value.id
2566
                 : id // ignore: cast nullable to non nullable
2567
                     as int,
            name: null == name
2568
                ? value.name
2569
                 : name // ignore: cast nullable to non nullable
2570
2571
                     as String,
```

```
2572
          ) as $Val);
2573
        }
2574
      }
2575
2576
      /// @nodoc
      abstract class \begin { equation } \begin { gathered }
2577
         TopicImplCopyWith <$Res > implements $TopicCopyWith <$Res > {
2578
        factory _\end{gathered}\end{equation}TopicImplCopyWith(
                 $TopicImpl value, $Res Function( $TopicImpl) then)
2579
2580
            __\begin { equation } \begin { gathered } TopicImplCopyWithImpl
2581
        @override
2582
        @useResult
2583
        $Res call({int id, String name});
2584
      }
2585
2586
      /// @nodoc
      class \end{gathered}\end{equation}TopicImplCopyWithImpl<
2587
         $Res>
2588
          extends $TopicCopyWithImpl < $Res, $TopicImpl >
2589
          implements \begin \{ equation \} \begin \{ gathered \}
             TopicImplCopyWith <$Res> {
        \end{gathered}\end{equation}TopicImplCopyWithImpl(
2590
            $TopicImpl value, $Res Function($TopicImpl) then)
2591
2592
            : super(_value, _then);
2593
2594
        @pragma('vm: prefer - inline')
2595
        @override
        $Res call({
2596
2597
          Object? id = null,
2598
          Object? name = null,
2599
        }) {
2600
          return then ($TopicImpl(
2601
            id: null == id
2602
                 ? value.id
2603
                 : id // ignore: cast nullable to non nullable
2604
                     as int,
            name: null == name
2605
2606
                 ? value.name
2607
                 : name // ignore: cast nullable to non nullable
```

```
2608
                     as String,
2609
          ));
2610
        }
2611
      }
2612
2613
      /// @nodoc
2614
      @JsonSerializable()
      class $TopicImpl implements _Topic {
2615
2616
        const $TopicImpl({required this.id, required this.name});
2617
2618
        factory $TopicImpl.fromJson(Map<String, dynamic> ison) =>
2619
            \begin { equation } \begin { gathered } TopicImplFromJson ( json
               );
2620
2621
        @override
2622
        final int id;
2623
        @override
2624
        final String name;
2625
2626
        @override
2627
        String to String() {
2628
          return 'Topic(id: $id, name: $name)';
2629
        }
2630
2631
        @override
2632
        bool operator ==(Object other) {
2633
          return identical(this, other) ||
2634
              (other.runtimeType == runtimeType &&
                   other is $TopicImpl &&
2635
                   (identical(other.id, id) || other.id == id) &&
2636
                   (identical(other.name, name) || other.name ==
2637
                      name));
2638
        }
2639
2640
        @JsonKey(ignore: true)
2641
        @override
2642
        int get hashCode => Object.hash(runtimeType, id, name);
2643
2644
        @JsonKey(ignore: true)
        @override
2645
2646
        @pragma('vm: prefer -inline')
```

```
2647
        \end{gathered}\end{equation}TopicImplCopyWith< $TopicImpl>
            get copyWith =>
            __\begin { equation } \begin { gathered } TopicImplCopyWithImpl
2648
               < $TopicImpl > (this, $identity);
2649
2650
        @override
2651
        Map < String, dynamic > to Json() {
          return _\end{gathered}\end{equation}TopicImplToJson(
2652
2653
            this,
2654
          );
2655
        }
2656
2657
2658
      abstract class Topic implements Topic {
        const factory _Topic({required final int id, required final
2659
            String name \}) =
2660
            $TopicImpl;
2661
2662
        factory Topic . from Json (Map < String , dynamic > json ) =
           _$TopicImpl.fromJson;
2663
2664
        @override
2665
        int get id;
2666
        @override
2667
        String get name;
2668
        @override
2669
        @JsonKey(ignore: true)
2670
        _\begin { equation } \begin { gathered } TopicImplCopyWith <
           $TopicImpl> get copyWith =>
            throw privateConstructorUsedError;
2671
2672
      }
2673
2674
      conference request.dart
2675
2676
      import 'package: freezed_annotation / freezed_annotation . dart ';
2677
2678
      part 'conference request. freezed. dart';
2679
      part 'conference request.g.dart';
2680
2681
      @freezed
2682
      class ConferenceRequest with $ConferenceRequest {
```

```
2683
        const factory ConferenceRequest({
2684
          required String name,
2685
          required int cityId,
          required int topicId,
2686
2687
          required String startDate,
2688
          required String endDate,
2689
          required String description,
2690
          required String contacts,
2691
          required String imageUrl,
2692
        }) = ConferenceRequest;
2693
        factory ConferenceRequest.fromJson(Map<String, dynamic>
2694
           json) => $ConferenceRequestFromJson(json);
2695
2696
2697
      city.dart
2698
2699
      import 'package: freezed annotation / freezed annotation.dart';
2700
      part 'city . freezed . dart ';
2701
2702
      part 'city.g.dart';
2703
2704
      @freezed
      class City with _$City {
2705
2706
        const factory City({
2707
          required int id,
2708
          required String name,
2709
        }) = City;
2710
        factory City.fromJson(Map<String, dynamic> json) =>
2711
           $CityFromJson(json);
2712
     }
2713
2714
      conference search options. freezed. dart
2715
      // coverage:ignore-file
      // GENERATED CODE - DO NOT MODIFY BY HAND
2716
2717
      // ignore for file: type=lint
      // ignore_for_file: unused_element, deprecated member use,
2718
         deprecated member use from same package,
         use_function_type_syntax_for_parameters, unnecessary_const
         , avoid init to null,
```

```
invalid_override_different_default_values_named,
        prefer expression function bodies, annotate overrides,
        invalid annotation target, unnecessary question mark
2719
2720
     part of 'conference search options.dart';
2721
     //
2722
        ******************************
     // FreezedGenerator
2723
2724
        ****************************
2725
2726
     T $identity <T>(T value) => value;
2727
2728
     final privateConstructorUsedError = UnsupportedError(
         'It seems like you constructed your class using 'MyClass.
2729
            () '. This constructor is only meant to be used by
            freezed and you are not supposed to need it nor use it
            .\nPlease check the documentation here for more
            information: https://github.com/rrousselGit/freezed#
            adding-getters-and-methods-to-our-models');
2730
     ConferenceSearchOptions $ConferenceSearchOptionsFromJson(
2731
         Map < String, dynamic > json) {
2732
2733
       return ConferenceSearchOptions.fromJson(json);
2734
2735
     /// @nodoc
2736
2737
     mixin $ConferenceSearchOptions {
2738
       List < City > get cities => throw privateConstructorUsedError
2739
       List < Topic > get topics => throw
          _privateConstructorUsedError;
2740
2741
       Map < String, dynamic > to Json() => throw
          privateConstructorUsedError;
2742
       @JsonKey(ignore: true)
       $ConferenceSearchOptionsCopyWith < ConferenceSearchOptions >
2743
          get copyWith =>
```

```
2744
            throw privateConstructorUsedError;
2745
2746
2747
      /// @nodoc
2748
      abstract class $ConferenceSearchOptionsCopyWith <$Res> {
2749
        factory $ConferenceSearchOptionsCopyWith(
           Conference Search Options value,
                $Res Function(ConferenceSearchOptions) then) =
2750
            $ConferenceSearchOptionsCopyWithImpl<$Res,
2751
               ConferenceSearchOptions >;
2752
        @useResult
        $Res call({List < City > cities, List < Topic > topics});
2753
2754
      }
2755
      /// @nodoc
2756
2757
      class $ConferenceSearchOptionsCopyWithImpl<$Res,
2758
              $Val extends ConferenceSearchOptions >
          implements $ConferenceSearchOptionsCopyWith <$Res> {
2759
        $ConferenceSearchOptionsCopyWithImpl(this. value, this.
2760
           _then);
2761
2762
        // ignore: unused field
2763
        final $Val value;
2764
        // ignore: unused field
        final $Res Function($Val) then;
2765
2766
2767
        @pragma('vm: prefer -inline')
2768
        @override
        $Res call({
2769
          Object? cities = null,
2770
          Object? topics = null,
2771
2772
        }) {
          return then (value.copyWith (
2773
2774
            cities: null == cities
2775
                ? value.cities
2776
                 : cities // ignore: cast nullable to non nullable
2777
                     as List < City >,
            topics: null == topics
2778
                ? value.topics
2779
2780
                 : topics // ignore: cast_nullable_to_non_nullable
2781
                     as List < Topic >,
```

```
2782
          ) as $Val);
2783
        }
2784
      }
2785
2786
      /// @nodoc
2787
      abstract class \end{gathered}\end{equation}
         ConferenceSearchOptionsImplCopyWith <$Res>
2788
          implements $ConferenceSearchOptionsCopyWith <$Res> {
2789
        factory \begin \equation \\ begin \{ gathered \}
           Conference Search Options Impl Copy With (
2790
                 $ConferenceSearchOptionsImpl value,
                 $Res Function( $ConferenceSearchOptionsImpl) then)
2791
2792
            __\end{gathered}\end{equation}
               ConferenceSearchOptionsImplCopyWithImpl<$Res>;
2793
        @override
2794
        @useResult
2795
        $Res call({List < City > cities, List < Topic > topics});
2796
      }
2797
2798
      /// @nodoc
      class \begin{equation}\begin{gathered}
2799
         ConferenceSearchOptionsImplCopyWithImpl<$Res>
2800
          extends $ConferenceSearchOptionsCopyWithImpl <$Res,
               $ConferenceSearchOptionsImpl>
2801
          implements \end{gathered}\end{equation}
2802
             ConferenceSearchOptionsImplCopyWith <$Res> {
2803
        \begin { equation } \ begin { gathered }
           Conference Search Options Impl Copy With Impl (
2804
            $ConferenceSearchOptionsImpl value,
            $Res Function( $ConferenceSearchOptionsImpl) then)
2805
2806
            : super( value, then);
2807
2808
        @pragma('vm: prefer -inline')
2809
        @override
2810
        $Res call({
2811
          Object? cities = null,
2812
          Object? topics = null,
2813
        }) {
          return _then(_$ConferenceSearchOptionsImpl(
2814
2815
            cities: null == cities
```

```
2816
                 ? value. cities
                 : cities // ignore: cast_nullable_to_non_nullable
2817
2818
                     as List < City >,
2819
            topics: null == topics
2820
                ? value. topics
2821
                 : topics // ignore: cast_nullable_to_non_nullable
2822
                     as List < Topic >,
2823
          ));
2824
        }
2825
2826
2827
      /// @nodoc
2828
      @JsonSerializable()
2829
      class $ConferenceSearchOptionsImpl implements
         ConferenceSearchOptions {
2830
        const $ConferenceSearchOptionsImpl(
2831
            {required final List < City > cities, required final List <
               Topic > topics })
            : cities = cities,
2832
2833
              _topics = topics;
2834
2835
        factory $ConferenceSearchOptionsImpl.fromJson(Map<String,
           dynamic > ison) =>
2836
            \end{gathered}\end{equation}
               ConferenceSearchOptionsImplFromJson(json);
2837
2838
        final List < City > cities;
2839
        @override
        List < City > get cities {
2840
          if (cities is EqualUnmodifiableListView) return cities;
2841
          // ignore: implicit dynamic type
2842
2843
          return EqualUnmodifiableListView(cities);
2844
        }
2845
2846
        final List < Topic > topics;
2847
        @override
2848
        List < Topic > get topics {
2849
          if (topics is EqualUnmodifiableListView) return topics;
          // ignore: implicit dynamic type
2850
          return EqualUnmodifiableListView( topics);
2851
2852
```

```
2853
2854
        @override
2855
        String to String() {
2856
          return 'ConferenceSearchOptions(cities: $cities, topics:
             $topics)';
2857
        }
2858
2859
        @override
2860
        bool operator ==(Object other) {
2861
          return identical(this, other) ||
               (other.runtimeType == runtimeType &&
2862
                   other is $ConferenceSearchOptionsImpl &&
2863
2864
                   const DeepCollectionEquality().equals(other.
                      cities, cities) &&
                   const DeepCollectionEquality().equals(other.
2865
                      _topics, _topics));
2866
        }
2867
2868
        @JsonKey(ignore: true)
2869
        @override
2870
        int get hashCode => Object.hash(
2871
            runtimeType,
2872
            const DeepCollectionEquality().hash( cities),
2873
            const DeepCollectionEquality().hash( topics));
2874
2875
        @JsonKey(ignore: true)
2876
        @override
2877
        @pragma('vm: prefer -inline')
2878
        \begin { equation } \ begin { gathered }
           ConferenceSearchOptionsImplCopyWith <
           $ConferenceSearchOptionsImpl>
2879
            get copyWith => \end{gathered}\end{equation}
               ConferenceSearchOptionsImplCopyWithImpl <
2880
                 $ConferenceSearchOptionsImpl > (this, $identity);
2881
2882
        @override
2883
        Map < String, dynamic > to Json() {
2884
          return \begin { equation } \begin { gathered }
             Conference Search Options Impl To Json (
2885
            this,
2886
          );
```

```
2887
2888
2889
2890
      abstract class ConferenceSearchOptions implements
         ConferenceSearchOptions {
        const factory ConferenceSearchOptions (
2891
2892
            {required final List < City > cities,
2893
            required final List < Topic > topics \}) =
               $ConferenceSearchOptionsImpl;
2894
        factory ConferenceSearchOptions.fromJson(Map<String,
2895
           dynamic > json) =
2896
            $ConferenceSearchOptionsImpl.fromJson;
2897
2898
        @override
2899
        List < City > get cities;
2900
        @override
2901
        List < Topic > get topics;
2902
        @override
2903
        @JsonKey(ignore: true)
        \end{gathered}\end{equation}
2904
           ConferenceSearchOptionsImplCopyWith <
           $ConferenceSearchOptionsImpl>
2905
            get copyWith => throw privateConstructorUsedError;
2906
2907
2908
      topic.dart
2909
      import 'package: freezed annotation / freezed annotation.dart';
2910
2911
      part 'topic . freezed . dart ';
2912
      part 'topic.g.dart';
2913
2914
      @freezed
2915
      class Topic with $Topic {
2916
        const factory Topic({
          required int id,
2917
2918
          required String name,
2919
        \}) = Topic;
2920
        factory Topic from Json (Map < String , dynamic > json ) =>
2921
           $TopicFromJson(json);
```

```
2922
2923
2924
     conference updating request.g.dart
2925
     // GENERATED CODE - DO NOT MODIFY BY HAND
2926
2927
     part of 'conference updating request.dart';
2928
2929
     //
        *************************************
2930
      // JsonSerializableGenerator
2931
        *************************************
2932
2933
      $ConferenceUpdatingRequestImpl \begin {equation } \begin {
        gathered \ Conference Updating Request ImplFrom Json (
              Map < String , dynamic > json ) =>
2934
2935
          $ConferenceUpdatingRequestImpl(
2936
            name: json['name'] as String?,
2937
            cityId: (json['cityId'] as num?)?.toInt(),
2938
            topicId: (json['topicId'] as num?)?.toInt(),
2939
            startDate: json['startDate'] as String?,
2940
            endDate: json['endDate'] as String?,
            description: json['description'] as String?,
2941
2942
            contacts: json['contacts'] as String?,
2943
            imageUrl: json['imageUrl'] as String?,
2944
          );
2945
2946
     Map < String, dynamic > \end { gathered } \end { equation }
        Conference Updating Request Impl To Json (
2947
              $ConferenceUpdatingRequestImpl instance) =>
2948
         <String, dynamic>{
2949
            'name': instance.name,
2950
            'cityId': instance.cityId,
2951
            'topicId': instance.topicId,
2952
            'startDate': instance.startDate,
2953
            'endDate': instance.endDate,
            'description': instance.description,
2954
2955
            'contacts': instance.contacts,
2956
            'imageUrl': instance.imageUrl,
```

```
2957
          };
2958
2959
     conference short response.g.dart
2960
     // GENERATED CODE - DO NOT MODIFY BY HAND
2961
2962
     part of 'conference short response.dart';
2963
2964
     //
        *************************************
2965
      // JsonSerializableGenerator
2966
        *************************************
2967
2968
      _$ConferenceShortResponseImpl _\begin{equation}\begin{
        gathered \ Conference Short Response Impl From Json (
2969
              Map < String , dynamic > json ) =>
2970
          $ConferenceShortResponseImpl(
2971
            id: (json['id'] as num).toInt(),
2972
            name: json['name'] as String,
            city: json['city'] as String,
2973
2974
            topic: json['topic'] as String,
2975
            startDate: json['startDate'] as String,
2976
            endDate: json['endDate'] as String,
2977
         );
2978
2979
     Map < String, dynamic > _ \end { gathered } \end { equation }
        ConferenceShortResponseImplToJson(
              $ConferenceShortResponseImpl instance) =>
2980
2981
         <String, dynamic>{
2982
            'id': instance.id,
2983
            'name': instance.name,
2984
            'city': instance.city,
2985
            'topic': instance.topic,
2986
            'startDate': instance.startDate,
2987
            'endDate': instance.endDate,
2988
          };
2989
2990
     city.g.dart
2991
     // GENERATED CODE - DO NOT MODIFY BY HAND
```

```
2992
2993
     part of 'city . dart';
2994
2995
     //
        ***********************************
     // JsonSerializableGenerator
2996
     //
2997
        *************************************
2998
2999
     $CityImpl \begin { equation } \begin { gathered } CityImplFromJson (
        Map < String , dynamic > json ) => $CityImpl(
3000
           id: (json['id'] as num).toInt(),
3001
           name: json['name'] as String,
3002
         );
3003
3004
     Map < String, dynamic > \end { gathered } \end { equation }
        CityImplToJson( $CityImpl instance) =>
3005
         <String, dynamic>{
3006
           'id': instance.id,
3007
           'name': instance.name,
3008
         };
3009
3010
     conference detail response.g.dart
     // GENERATED CODE - DO NOT MODIFY BY HAND
3011
3012
3013
     part of 'conference detail response.dart';
3014
     //
3015
        *******************************
3016
     // JsonSerializableGenerator
3017
     //
        ****************************
3018
3019
     $ConferenceDetailResponseImpl \begin { equation } \begin {
        gathered \ ConferenceDetailResponseImplFromJson (
3020
             Map < String , dynamic > json ) =>
         $ConferenceDetailResponseImpl(
3021
```

```
id: (json['id'] as num).toInt(),
3022
            name: json['name'] as String,
3023
3024
            city: json['city'] as String,
3025
            topic: json['topic'] as String,
3026
            startDate: ison['startDate'] as String,
3027
            endDate: json['endDate'] as String,
3028
            description: ison['description'] as String,
3029
            contacts: json['contacts'] as String,
            canRedact: json['canRedact'] as bool,
3030
3031
          );
3032
3033
     Map < String, dynamic > \end { gathered } \end { equation }
         ConferenceDetailResponseImplToJson (
3034
              $ConferenceDetailResponseImpl instance) =>
3035
          <String, dynamic>{
            'id': instance.id,
3036
3037
            'name': instance.name.
3038
            'city': instance.city,
            'topic': instance.topic,
3039
            'startDate': instance.startDate,
3040
            'endDate': instance.endDate,
3041
            'description': instance.description,
3042
3043
            'contacts': instance.contacts,
3044
            'canRedact': instance.canRedact,
3045
          };
3046
3047
      conference request. freezed. dart
3048
      // coverage:ignore-file
      // GENERATED CODE - DO NOT MODIFY BY HAND
3049
      // ignore for file: type=lint
3050
      // ignore for file: unused element, deprecated member use,
3051
         deprecated member use from same package,
         use function type syntax for parameters, unnecessary const
         , avoid init to null,
         invalid_override_different_default_values_named,
         prefer expression function bodies, annotate overrides,
         invalid annotation target, unnecessary question mark
3052
      part of 'conference request.dart';
3053
3054
```

```
3055
     //
        **************************
3056
     // FreezedGenerator
3057
     //
        3058
3059
     T $identity <T>(T value) => value;
3060
3061
     final _privateConstructorUsedError = UnsupportedError(
3062
         'It seems like you constructed your class using 'MyClass.
            () '. This constructor is only meant to be used by
            freezed and you are not supposed to need it nor use it
            .\nPlease check the documentation here for more
            information: https://github.com/rrousselGit/freezed#
            adding-getters-and-methods-to-our-models');
3063
3064
     ConferenceRequest $ConferenceRequestFromJson(Map<String,
        dynamic > json) {
       return ConferenceRequest.fromJson(json);
3065
3066
3067
3068
     /// @nodoc
3069
     mixin $ConferenceRequest {
3070
       String get name => throw _privateConstructorUsedError;
3071
       int get cityId => throw _privateConstructorUsedError;
3072
       int get topicId => throw _privateConstructorUsedError;
3073
       String get startDate => throw _privateConstructorUsedError;
       String get endDate => throw _privateConstructorUsedError;
3074
3075
       String get description => throw
          privateConstructorUsedError;
3076
       String get contacts => throw _privateConstructorUsedError;
3077
       String get imageUrl => throw privateConstructorUsedError;
3078
3079
       Map < String, dynamic > to Json() => throw
          privateConstructorUsedError;
3080
       @JsonKey(ignore: true)
3081
       $ConferenceRequestCopyWith < ConferenceRequest > get copyWith
3082
           throw privateConstructorUsedError;
```

```
3083
3084
3085
      /// @nodoc
      abstract class $ConferenceRequestCopyWith <$Res> {
3086
3087
        factory $ConferenceRequestCopyWith(
3088
                 ConferenceRequest value, $Res Function(
                    ConferenceRequest) then) =
3089
            _$ConferenceRequestCopyWithImpl<$Res, ConferenceRequest
               >;
3090
        @useResult
3091
        $Res call(
3092
            {String name,
3093
            int cityId,
3094
            int topicId,
3095
            String startDate,
3096
            String endDate,
3097
            String description,
3098
            String contacts,
            String imageUrl });
3099
3100
3101
3102
      /// @nodoc
3103
      class $ConferenceRequestCopyWithImpl<$Res, $Val extends
         ConferenceRequest>
          implements $ConferenceRequestCopyWith <$Res> {
3104
        $ConferenceRequestCopyWithImpl(this. value, this. then);
3105
3106
3107
        // ignore: unused field
        final $Val value;
3108
        // ignore: unused field
3109
        final $Res Function($Val) then;
3110
3111
3112
        @pragma('vm: prefer -inline')
3113
        @override
        $Res call({
3114
          Object? name = null,
3115
3116
          Object? cityId = null,
3117
          Object? topicId = null,
          Object? startDate = null,
3118
3119
          Object? endDate = null,
3120
          Object? description = null,
```

```
3121
          Object? contacts = null,
          Object? imageUrl = null,
3122
3123
        }) {
3124
          return then (value.copyWith (
3125
            name: null == name
3126
                ? value.name
3127
                : name // ignore: cast nullable to non nullable
3128
                     as String,
            cityId: null == cityId
3129
3130
                ? value.cityId
                : cityId // ignore: cast_nullable_to_non_nullable
3131
3132
                     as int,
            topicId: null == topicId
3133
3134
                ? value.topicId
3135
                : topicId // ignore: cast nullable to non nullable
3136
                     as int,
3137
            startDate: null == startDate
                ? value.startDate
3138
                : startDate // ignore:
3139
                   cast_nullable to non nullable
3140
                     as String,
            endDate: null == endDate
3141
3142
                ? value . endDate
3143
                : endDate // ignore: cast nullable to non nullable
3144
                     as String,
3145
            description: null == description
3146
                ? value.description
3147
                : description // ignore:
                   cast nullable to non nullable
3148
                     as String,
            contacts: null == contacts
3149
                ? value.contacts
3150
3151
                : contacts // ignore: cast nullable to non nullable
3152
                     as String,
3153
            imageUrl: null == imageUrl
                ? value.imageUrl
3154
                : imageUrl // ignore: cast_nullable to non nullable
3155
3156
                     as String,
3157
          ) as $Val);
3158
        }
3159
```

```
3160
3161
      /// @nodoc
3162
      abstract class \begin \{ equation \} \begin \{ gathered \}
         ConferenceRequestImplCopyWith <$Res>
3163
          implements $ConferenceRequestCopyWith <$Res> {
3164
        factory \end{gathered}\end{equation}
           ConferenceRequestImplCopyWith($ConferenceRequestImpl
           value,
                 $Res Function( $ConferenceRequestImpl) then) =
3165
3166
            \begin { equation } \ begin { gathered }
               ConferenceRequestImplCopyWithImpl<$Res>;
        @override
3167
3168
        @useResult
3169
        $Res call(
3170
            {String name,
3171
            int cityId,
3172
            int topicId,
            String startDate,
3173
            String endDate,
3174
            String description,
3175
            String contacts,
3176
            String imageUrl });
3177
3178
3179
3180
      /// @nodoc
      class \end{gathered}\end{equation}
3181
         ConferenceRequestImplCopyWithImpl<$Res>
3182
          extends _$ConferenceRequestCopyWithImpl<$Res,
             $ConferenceRequestImpl>
          implements \begin \{ equation \} \begin \{ gathered \}
3183
             ConferenceRequestImplCopyWith <$Res> {
        \end{gathered}\end{equation}
3184
           ConferenceRequestImplCopyWithImpl(
           $ConferenceRequestImpl value,
3185
            $Res Function(_$ConferenceRequestImpl) _then)
3186
            : super(_value, _then);
3187
        @pragma('vm: prefer -inline')
3188
3189
        @override
3190
        $Res call({
          Object? name = null,
3191
```

```
3192
          Object? cityId = null,
          Object? topicId = null,
3193
3194
          Object? startDate = null,
3195
          Object? endDate = null,
3196
          Object? description = null,
3197
          Object? contacts = null,
3198
          Object? imageUrl = null,
3199
        }) {
3200
          return then ( $ConferenceRequestImpl (
3201
            name: null == name
                ? value.name
3202
3203
                : name // ignore: cast nullable to non nullable
3204
                     as String,
3205
            cityId: null == cityId
3206
                ? value.cityId
3207
                : cityId // ignore: cast_nullable_to_non_nullable
3208
                    as int.
3209
            topicId: null == topicId
                ? value.topicId
3210
3211
                : topicId // ignore: cast_nullable_to_non_nullable
3212
                     as int.
            startDate: null == startDate
3213
3214
                ? value.startDate
3215
                : startDate // ignore:
                   cast nullable to non nullable
3216
                    as String,
3217
            endDate: null == endDate
3218
                ? value . endDate
3219
                : endDate // ignore: cast nullable to non nullable
3220
                     as String,
            description: null == description
3221
3222
                ? value.description
3223
                : description // ignore:
                   cast nullable to non nullable
3224
                    as String,
3225
            contacts: null == contacts
3226
                ? value.contacts
3227
                : contacts // ignore: cast nullable to non nullable
                     as String,
3228
3229
            imageUrl: null == imageUrl
                ? value.imageUrl
3230
```

```
3231
                 : imageUrl // ignore: cast_nullable_to_non_nullable
3232
                     as String,
3233
          ));
3234
        }
3235
      }
3236
3237
      /// @nodoc
3238
      @JsonSerializable()
      class $ConferenceRequestImpl implements ConferenceRequest {
3239
3240
        const $ConferenceRequestImpl(
            {required this.name,
3241
3242
            required this.cityId,
3243
            required this.topicId,
3244
            required this.startDate,
3245
            required this.endDate,
            required this. description,
3246
3247
            required this contacts,
3248
            required this.imageUrl });
3249
3250
        factory _$ConferenceRequestImpl.fromJson(Map<String,
           dynamic > json) =>
            \begin { equation } \ begin { gathered }
3251
               ConferenceRequestImplFromJson(json);
3252
3253
        @override
3254
        final String name;
3255
        @override
3256
        final int cityId;
3257
        @override
        final int topicId;
3258
3259
        @override
3260
        final String startDate;
3261
        @override
3262
        final String endDate;
3263
        @override
        final String description;
3264
3265
        @override
3266
        final String contacts;
3267
        @override
3268
        final String imageUrl;
3269
```

```
3270
        @override
3271
        String to String() {
3272
          return 'ConferenceRequest(name: $name, cityId: $cityId,
             topicId: $topicId, startDate: $startDate, endDate:
             $endDate, description: $description, contacts:
             $contacts , imageUrl: $imageUrl) ';
3273
        }
3274
3275
        @override
3276
        bool operator ==(Object other) {
3277
          return identical (this, other)
3278
              (other.runtimeType == runtimeType &&
3279
                  other is $ConferenceRequestImpl &&
3280
                  (identical (other.name, name) || other.name ==
                     name) &&
3281
                  (identical(other.cityId, cityId) || other.cityId
                     == cityId) &&
3282
                  (identical(other.topicId, topicId) || other.
                     topicId == topicId) &&
3283
                  (identical(other.startDate, startDate) ||
3284
                       other.startDate == startDate) &&
                  (identical(other.endDate, endDate) || other.
3285
                     endDate == endDate) &&
3286
                  (identical (other.description, description) ||
3287
                       other.description == description) &&
3288
                  (identical(other.contacts, contacts) ||
3289
                       other.contacts == contacts) &&
3290
                  (identical(other.imageUrl, imageUrl) ||
3291
                       other.imageUrl == imageUrl));
3292
        }
3293
3294
        @JsonKey(ignore: true)
3295
        @override
3296
        int get hashCode => Object.hash(runtimeType, name, cityId,
           topicId, startDate,
3297
            endDate, description, contacts, imageUrl);
3298
3299
        @JsonKey(ignore: true)
3300
        @override
3301
        @pragma('vm: prefer -inline')
```

```
3302
        \end{gathered}\end{equation}ConferenceRequestImplCopyWith<
           $ConferenceRequestImpl> get copyWith =>
            __\begin { equation } \ begin { gathered }
3303
               ConferenceRequestImplCopyWithImpl <
               $ConferenceRequestImpl >(
                this, $identity);
3304
3305
3306
        @override
        Map < String, dynamic > to Json() {
3307
3308
          return \end{gathered}\end{equation}
             ConferenceRequestImplToJson(
3309
            this,
3310
          );
3311
        }
3312
      }
3313
3314
      abstract class ConferenceRequest implements
         ConferenceRequest {
3315
        const factory ConferenceRequest(
3316
            {required final String name,
3317
            required final int cityId,
3318
            required final int topicId,
3319
            required final String startDate,
3320
            required final String endDate,
            required final String description,
3321
            required final String contacts,
3322
3323
            required final String imageUrl \}) =
               $ConferenceRequestImpl;
3324
        factory ConferenceRequest.fromJson(Map<String, dynamic>
3325
           ison) =
3326
            $ConferenceRequestImpl.fromJson;
3327
3328
        @override
3329
        String get name;
        @override
3330
3331
        int get cityId;
3332
        @override
        int get topicId;
3333
        @override
3334
3335
        String get startDate;
```

```
3336
        @override
3337
        String get endDate;
3338
        @override
3339
        String get description;
3340
        @override
3341
        String get contacts;
3342
        @override
3343
        String get imageUrl;
3344
        @override
3345
        @JsonKey(ignore: true)
3346
        \begin { equation } \ begin { gathered }
           ConferenceRequestImplCopyWith < $ConferenceRequestImpl>
           get copyWith =>
3347
            throw privateConstructorUsedError;
3348
3349
3350
      conference search options.dart
      import 'package: freezed annotation / freezed annotation.dart';
3351
3352
3353
      import 'city . dart';
3354
      import 'topic . dart';
3355
3356
      part 'conference search options. freezed.dart';
3357
      part 'conference search options.g.dart';
3358
3359
      @freezed
3360
      class ConferenceSearchOptions with $ConferenceSearchOptions
         {
3361
        const factory ConferenceSearchOptions({
3362
          required List < City > cities,
          required List < Topic > topics,
3363
3364
        }) = ConferenceSearchOptions;
3365
3366
        factory ConferenceSearchOptions.fromJson(Map String,
           dynamic > ison ) =>
            $ConferenceSearchOptionsFromJson(json);
3367
3368
3369
      city.freezed.dart
3370
3371
      // coverage:ignore-file
      // GENERATED CODE - DO NOT MODIFY BY HAND
3372
```

```
3373
     // ignore for file: type=lint
     // ignore for file: unused element, deprecated member use,
3374
        deprecated member use from same package,
        use function type syntax for parameters, unnecessary const
        , avoid init to null,
        invalid override different default values named,
        prefer expression function bodies, annotate overrides,
        invalid_annotation_target, unnecessary_question_mark
3375
     part of 'city.dart';
3376
3377
     //
3378
        *******************************
3379
     // FreezedGenerator
3380
        *************************************
3381
     T _\$identity <T>(T value) => value;
3382
3383
3384
     final privateConstructorUsedError = UnsupportedError(
3385
         'It seems like you constructed your class using 'MyClass.
            () '. This constructor is only meant to be used by
            freezed and you are not supposed to need it nor use it
            .\nPlease check the documentation here for more
            information: https://github.com/rrousselGit/freezed#
            adding-getters-and-methods-to-our-models');
3386
3387
     City $CityFromJson(Map<String, dynamic> json) {
3388
       return City.fromJson(json);
3389
     }
3390
3391
     /// @nodoc
     mixin _$City {
3392
3393
       int get id => throw _privateConstructorUsedError;
3394
       String get name => throw privateConstructorUsedError;
3395
3396
       Map < String, dynamic > to Json() => throw
          _privateConstructorUsedError;
3397
       @JsonKey(ignore: true)
```

```
3398
        $CityCopyWith < City > get copyWith => throw
           privateConstructorUsedError;
3399
3400
3401
     /// @nodoc
3402
      abstract class $CityCopyWith <$Res> {
3403
        factory $CityCopyWith(City value, $Res Function(City) then)
3404
            $CityCopyWithImpl<$Res, City>;
3405
        @useResult
        $Res call({int id, String name});
3406
3407
     }
3408
3409
      /// @nodoc
      class $CityCopyWithImpl<$Res, $Val extends City>
3410
3411
          implements $CityCopyWith <$Res> {
3412
        $CityCopyWithImpl(this. value, this. then);
3413
3414
        // ignore: unused field
3415
        final $Val _value;
3416
        // ignore: unused field
        final $Res Function($Val) then;
3417
3418
3419
        @pragma('vm: prefer -inline')
        @override
3420
3421
        $Res call({
3422
          Object? id = null,
          Object? name = null,
3423
3424
        }) {
          return _then(_value.copyWith(
3425
            id: null == id
3426
3427
                ? value.id
3428
                : id // ignore: cast nullable to non nullable
3429
                     as int,
3430
            name: null == name
3431
                ? value.name
3432
                : name // ignore: cast nullable to non nullable
3433
                     as String,
3434
          ) as $Val);
3435
3436
```

```
3437
3438
      /// @nodoc
3439
      abstract class \end{gathered}\end{equation}CityImplCopyWith<
         $Res > implements $CityCopyWith < $Res > {
3440
        factory \begin \equation \begin \gathered \CityImplCopyWith (
                $CityImpl value, $Res Function( $CityImpl) then) =
3441
            __\end{gathered}\end{equation}CityImplCopyWithImpl<$Res
3442
3443
        @override
3444
        @useResult
        $Res call({int id, String name});
3445
3446
     }
3447
3448
      /// @nodoc
      class \begin { equation } \begin { gathered } CityImplCopyWithImpl <
3449
3450
          extends _$CityCopyWithImpl<$Res, $CityImpl>
          implements \end{gathered}\end{equation}CityImplCopyWith<
3451
             $Res> {
        __\begin { equation } \begin { gathered } CityImplCopyWithImpl(
3452
           $CityImpl value, $Res Function($CityImpl) then)
            : super( value, then);
3453
3454
3455
        @pragma('vm: prefer -inline')
3456
        @override
3457
        $Res call({
3458
          Object? id = null,
          Object? name = null,
3459
3460
        }) {
3461
          return _then(_$CityImpl(
            id: null == id
3462
3463
                ? value.id
3464
                : id // ignore: cast nullable to non nullable
3465
                     as int,
3466
            name: null == name
3467
                ? value.name
3468
                : name // ignore: cast_nullable to non nullable
3469
                     as String,
3470
          ));
3471
3472
```

```
3473
      /// @nodoc
3474
3475
      @JsonSerializable()
3476
      class $CityImpl implements City {
3477
        const $CityImpl({required this.id, required this.name});
3478
3479
        factory $CityImpl.fromJson(Map<String, dynamic> json) =>
3480
            _\end{gathered}\end{equation}CityImplFromJson(json);
3481
3482
        @override
3483
        final int id;
3484
        @override
3485
        final String name;
3486
3487
        @override
3488
        String to String() {
3489
          return 'City (id: $id, name: $name)';
3490
        }
3491
3492
        @override
3493
        bool operator ==(Object other) {
3494
          return identical(this, other) ||
3495
              (other.runtimeType == runtimeType &&
                   other is $CityImpl &&
3496
                   (identical(other.id, id) || other.id == id) &&
3497
3498
                   (identical(other.name, name) || other.name ==
                      name));
3499
        }
3500
3501
        @JsonKey(ignore: true)
        @override
3502
3503
        int get hashCode => Object.hash(runtimeType, id, name);
3504
3505
        @JsonKey(ignore: true)
3506
        @override
3507
        @pragma('vm: prefer -inline')
3508
        \begin { equation } \begin { gathered } CityImplCopyWith <
           $CityImpl> get copyWith =>
            __\end { gathered } \end { equation } CityImplCopyWithImpl <
3509
               _$CityImpl > (this, _$identity);
3510
```

```
3511
       @override
       Map < String , dynamic > toJson() {
3512
3513
         return _\begin { equation } \begin { gathered } CityImplToJson (
3514
           this,
3515
         );
3516
       }
3517
3518
3519
     abstract class _City implements City {
3520
       const factory City({required final int id, required final
          String name \}) =
3521
           _$CityImpl;
3522
3523
       factory City.fromJson(Map<String, dynamic> json) =
          $CityImpl.fromJson;
3524
3525
       @override
3526
       int get id;
3527
       @override
       String get name;
3528
3529
       @override
3530
       @JsonKey(ignore: true)
3531
       _\end{gathered}\end{equation}CityImplCopyWith<_$CityImpl>
          get copyWith =>
           throw _privateConstructorUsedError;
3532
3533
3534
     conference_request.g.dart
3535
     // GENERATED CODE - DO NOT MODIFY BY HAND
3536
3537
3538
     part of 'conference_request.dart';
3539
3540
     //
        *******************************
3541
     // JsonSerializableGenerator
3542
     //
        *************************************
3543
```

```
3544
      $ConferenceRequestImpl \begin {equation }\begin {gathered}
         Conference Request Impl From Json (
3545
              Map < String , dynamic > json ) =>
3546
          $ConferenceRequestImpl(
3547
            name: ison['name'] as String,
3548
            cityId: (json['cityId'] as num).toInt(),
            topicId: (json['topicId'] as num).toInt(),
3549
3550
            startDate: json['startDate'] as String,
            endDate: json['endDate'] as String,
3551
            description: json['description'] as String,
3552
            contacts: json['contacts'] as String,
3553
            imageUrl: json['imageUrl'] as String,
3554
3555
          );
3556
3557
     Map < String, dynamic > \end { gathered } \end { equation }
         ConferenceRequestImplToJson(
3558
              $ConferenceRequestImpl instance) =>
          <String, dynamic>{
3559
            'name': instance.name,
3560
            'cityId': instance.cityId,
3561
            'topicId': instance.topicId,
3562
3563
            'startDate': instance.startDate,
3564
            'endDate': instance.endDate,
3565
            'description': instance.description,
            'contacts': instance.contacts,
3566
3567
            'imageUrl': instance.imageUrl,
3568
          };
3569
      conference detail response. freezed. dart
3570
      // coverage:ignore-file
3571
3572
      // GENERATED CODE - DO NOT MODIFY BY HAND
3573
      // ignore for file: type=lint
3574
      // ignore for file: unused element, deprecated member use,
         deprecated member use from same package,
         use_function_type_syntax_for_parameters, unnecessary_const
         , avoid init to null,
         invalid override different default values named,
         prefer expression function bodies, annotate overrides,
         invalid annotation target, unnecessary question mark
3575
3576
      part of 'conference detail response.dart';
```

```
3577
     //
3578
        *****************************
     // FreezedGenerator
3579
3580
     //
        *************************************
3581
3582
     T $identity <T>(T value) => value;
3583
3584
     final privateConstructorUsedError = UnsupportedError(
          'It seems like you constructed your class using 'MyClass.
3585
            () '. This constructor is only meant to be used by
            freezed and you are not supposed to need it nor use it
            .\nPlease check the documentation here for more
            information: https://github.com/rrousselGit/freezed#
            adding-getters-and-methods-to-our-models');
3586
     ConferenceDetailResponse _$ConferenceDetailResponseFromJson(
3587
         Map < String, dynamic > json) {
3588
3589
       return ConferenceDetailResponse.fromJson(json);
3590
3591
3592
     /// @nodoc
3593
     mixin $ConferenceDetailResponse {
3594
       int get id => throw privateConstructorUsedError;
3595
       String get name => throw _privateConstructorUsedError;
3596
       String get city => throw _privateConstructorUsedError;
3597
       String get topic => throw _privateConstructorUsedError;
3598
       String get startDate => throw _privateConstructorUsedError;
3599
       String get endDate => throw privateConstructorUsedError;
3600
       String get description => throw
          privateConstructorUsedError;
       String get contacts => throw _privateConstructorUsedError;
3601
3602
       bool get canRedact => throw _privateConstructorUsedError;
3603
3604
       Map < String, dynamic > to Json() => throw
          privateConstructorUsedError;
       @JsonKey(ignore: true)
3605
```

```
3606
        $ConferenceDetailResponseCopyWith < ConferenceDetailResponse >
            get copyWith =>
3607
            throw privateConstructorUsedError;
3608
      }
3609
3610
      /// @nodoc
      abstract class $ConferenceDetailResponseCopyWith <$Res> {
3611
3612
        factory $ConferenceDetailResponseCopyWith(
           ConferenceDetailResponse value,
3613
                $Res Function(ConferenceDetailResponse) then) =
3614
            $ConferenceDetailResponseCopyWithImpl<$Res,
               ConferenceDetailResponse >;
        @useResult
3615
3616
        $Res call(
3617
            {int id,
3618
            String name,
3619
            String city,
            String topic,
3620
            String startDate,
3621
            String endDate,
3622
            String description,
3623
3624
            String contacts,
3625
            bool canRedact });
3626
      }
3627
3628
      /// @nodoc
3629
      class $ConferenceDetailResponseCopyWithImpl <$Res,
3630
              $Val extends ConferenceDetailResponse>
3631
          implements $ConferenceDetailResponseCopyWith <$Res> {
        $ConferenceDetailResponseCopyWithImpl(this. value, this.
3632
           _then);
3633
3634
        // ignore: unused field
3635
        final $Val value;
        // ignore: unused field
3636
        final $Res Function($Val) then;
3637
3638
3639
        @pragma('vm: prefer -inline')
3640
        @override
        $Res call({
3641
3642
          Object? id = null,
```

```
3643
          Object? name = null,
          Object? city = null,
3644
3645
          Object? topic = null,
3646
          Object? startDate = null,
3647
          Object? endDate = null,
          Object? description = null,
3648
          Object? contacts = null,
3649
3650
          Object? canRedact = null,
3651
        }) {
3652
          return then (value.copyWith (
            id: null == id
3653
                ? value.id
3654
3655
                : id // ignore: cast nullable to non nullable
3656
                     as int,
3657
            name: null == name
3658
                ? value.name
3659
                : name // ignore: cast nullable to non nullable
3660
                     as String,
            city: null == city
3661
                ? _value.city
3662
3663
                : city // ignore: cast nullable to non nullable
3664
                     as String,
3665
            topic: null == topic
                ? value.topic
3666
3667
                : topic // ignore: cast nullable to non nullable
3668
                     as String,
3669
            startDate: null == startDate
3670
                ? value.startDate
3671
                : startDate // ignore:
                   cast nullable to non nullable
3672
                    as String,
3673
            endDate: null == endDate
                ? value.endDate
3674
3675
                : endDate // ignore: cast nullable to non nullable
                     as String,
3676
            description: null == description
3677
3678
                ? value.description
3679
                : description // ignore:
                   cast nullable to non nullable
                     as String,
3680
3681
            contacts: null == contacts
```

```
3682
                 ? value.contacts
3683
                 : contacts // ignore: cast_nullable_to_non_nullable
3684
                     as String,
            canRedact: null == canRedact
3685
3686
                 ? value.canRedact
3687
                 : canRedact // ignore:
                    cast nullable to non nullable
3688
                     as bool,
3689
          ) as $Val);
3690
3691
3692
3693
      /// @nodoc
3694
      abstract class \begin \{ equation \} \begin \{ gathered \}
         ConferenceDetailResponseImplCopyWith <$Res>
          implements $ConferenceDetailResponseCopyWith <$Res> {
3695
3696
        factory \end{gathered}\end{equation}
           ConferenceDetailResponseImplCopyWith(
3697
                 $ConferenceDetailResponseImpl value,
                 $Res Function(_$ConferenceDetailResponseImpl) then)
3698
3699
            \begin { equation } \ begin { gathered }
               ConferenceDetailResponseImplCopyWithImpl<$Res>;
        @override
3700
3701
        @useResult
3702
        $Res call(
3703
            {int id,
3704
            String name,
3705
            String city,
            String topic,
3706
            String startDate,
3707
            String endDate,
3708
3709
            String description,
3710
            String contacts,
3711
            bool canRedact { );
3712
3713
      /// @nodoc
3714
      class \end{gathered}\end{equation}
3715
         ConferenceDetailResponseImplCopyWithImpl<$Res>
          extends $ConferenceDetailResponseCopyWithImpl <$Res,
3716
```

```
3717
              $ConferenceDetailResponseImpl>
          implements _\begin { equation } \ begin { gathered }
3718
             ConferenceDetailResponseImplCopyWith <$Res> {
        \end{gathered}\end{equation}
3719
           ConferenceDetailResponseImplCopyWithImpl(
3720
            $ConferenceDetailResponseImpl value,
            $Res Function(_$ConferenceDetailResponseImpl) then)
3721
            : super(_value, _then);
3722
3723
3724
        @pragma('vm: prefer -inline')
3725
        @override
        $Res call({
3726
          Object? id = null,
3727
3728
          Object? name = null,
3729
          Object? city = null,
          Object? topic = null,
3730
3731
          Object? startDate = null,
          Object? endDate = null,
3732
          Object? description = null,
3733
          Object? contacts = null,
3734
          Object? canRedact = null,
3735
3736
        }) {
3737
          return then ( $ConferenceDetailResponseImpl(
            id: null == id
3738
3739
                ? value.id
                : id // ignore: cast_nullable_to_non_nullable
3740
3741
                     as int,
3742
            name: null == name
3743
                ? value.name
                : name // ignore: cast nullable to non nullable
3744
3745
                     as String,
            city: null == city
3746
                ? value.city
3747
                : city // ignore: cast nullable to non nullable
3748
3749
                     as String,
3750
            topic: null == topic
                ? value.topic
3751
                : topic // ignore: cast_nullable_to_non_nullable
3752
3753
                     as String,
            startDate: null == startDate
3754
3755
                ? value.startDate
```

```
3756
                : startDate // ignore:
                   cast nullable to non nullable
3757
                     as String,
3758
            endDate: null == endDate
                ? value.endDate
3759
3760
                : endDate // ignore: cast_nullable_to_non_nullable
3761
                     as String,
3762
            description: null == description
3763
                ? value.description
3764
                : description // ignore:
                   cast nullable to non nullable
3765
                     as String,
3766
            contacts: null == contacts
3767
                ? value.contacts
3768
                : contacts // ignore: cast nullable to non nullable
3769
                     as String,
3770
            canRedact: null == canRedact
                ? value.canRedact
3771
3772
                : canRedact // ignore:
                   cast_nullable_to_non_nullable
3773
                     as bool,
3774
          ));
3775
        }
3776
     }
3777
3778
     /// @nodoc
3779
      @JsonSerializable()
      class _$ConferenceDetailResponseImpl implements
3780
         ConferenceDetailResponse {
        const $ConferenceDetailResponseImpl(
3781
3782
            {required this.id,
3783
            required this.name,
3784
            required this.city,
3785
            required this.topic,
3786
            required this.startDate,
3787
            required this.endDate,
3788
            required this. description,
3789
            required this.contacts,
            required this.canRedact });
3790
3791
```

```
3792
        factory $ConferenceDetailResponseImpl.fromJson(Map<String,
            dynamic > ison ) =>
3793
            \begin { equation } \ begin { gathered }
               ConferenceDetailResponseImplFromJson(json);
3794
3795
        @override
3796
        final int id;
3797
        @override
3798
        final String name;
3799
        @override
3800
        final String city;
3801
        @override
3802
        final String topic;
3803
        @override
3804
        final String startDate;
3805
        @override
3806
        final String endDate;
3807
        @override
3808
        final String description;
3809
        @override
        final String contacts;
3810
3811
        @override
3812
        final bool canRedact;
3813
3814
        @override
3815
        String to String() {
3816
          return 'ConferenceDetailResponse(id: $id, name: $name,
             city: $city, topic: $topic, startDate: $startDate,
             endDate: $endDate, description: $description, contacts
             : $contacts, canRedact: $canRedact)';
3817
        }
3818
3819
        @override
3820
        bool operator ==(Object other) {
3821
          return identical(this, other) ||
3822
              (other.runtimeType == runtimeType &&
3823
                   other is $ConferenceDetailResponseImpl &&
3824
                   (identical(other.id, id) || other.id == id) &&
                   (identical(other.name, name) || other.name ==
3825
                     name) &&
```

```
3826
                   (identical (other.city, city) || other.city ==
                      city) &&
3827
                   (identical (other.topic, topic) || other.topic ==
                      topic) &&
3828
                   (identical(other.startDate, startDate) ||
3829
                       other.startDate == startDate) &&
                   (identical(other.endDate, endDate) || other.
3830
                     endDate == endDate) &&
3831
                   (identical (other.description, description) |
3832
                       other.description == description) &&
3833
                   (identical (other.contacts, contacts) |
3834
                       other.contacts == contacts) &&
3835
                   (identical (other.canRedact, canRedact) ||
3836
                       other.canRedact == canRedact));
3837
        }
3838
3839
        @JsonKey(ignore: true)
3840
        @override
        int get hashCode => Object.hash(runtimeType, id, name, city
3841
           , topic, startDate,
3842
            endDate, description, contacts, canRedact);
3843
3844
        @JsonKey(ignore: true)
3845
        @override
3846
        @pragma('vm: prefer -inline')
3847
        \end{gathered}\end{equation}
           ConferenceDetailResponseImplCopyWith <
           $ConferenceDetailResponseImpl>
            get copyWith => \begin{equation}\begin{gathered}
3848
               ConferenceDetailResponseImplCopyWithImpl <
                $ConferenceDetailResponseImpl > (this, $identity);
3849
3850
3851
        @override
3852
        Map < String , dynamic > toJson() {
3853
          return _\end{gathered}\end{equation}
             Conference Detail Response Impl To Json (
3854
            this,
3855
          );
3856
        }
3857
3858
```

```
3859
      abstract class ConferenceDetailResponse implements
         ConferenceDetailResponse {
        const factory ConferenceDetailResponse(
3860
3861
            {required final int id,
            required final String name,
3862
3863
            required final String city,
3864
            required final String topic,
3865
            required final String startDate,
3866
            required final String endDate,
3867
            required final String description,
            required final String contacts,
3868
            required final bool canRedact \}) =
3869
               $ConferenceDetailResponseImpl;
3870
3871
        factory ConferenceDetailResponse.fromJson(Map<String,
           dynamic > ison) =
3872
            $ConferenceDetailResponseImpl.fromJson;
3873
3874
        @override
3875
        int get id;
3876
        @override
3877
        String get name;
3878
        @override
3879
        String get city;
3880
        @override
3881
        String get topic;
3882
        @override
3883
        String get startDate;
3884
        @override
        String get endDate;
3885
3886
        @override
3887
        String get description;
3888
        @override
3889
        String get contacts;
        @override
3890
        bool get canRedact;
3891
3892
        @override
        @JsonKey(ignore: true)
3893
        $$ConferenceDetailResponseImplCopyWith <
3894
           $ConferenceDetailResponseImpl>
            get copyWith => throw _privateConstructorUsedError;
3895
```

```
3896
3897
3898
      conference api.dart
      import 'package: dio/dio.dart';
3899
3900
3901
      import 'models/conference detail response.dart';
3902
      import 'models/conference request.dart';
      import 'models/conference search options.dart';
3903
      import 'models/conference short response.dart';
3904
3905
      import 'models/conference updating request.dart';
3906
3907
      class ConferenceApi {
3908
        final Dio dio;
3909
3910
        ConferenceApi(this. dio);
3911
3912
        Future < Conference Search Options > get Search Options () async {
3913
          final response = await dio.get('/
             conferences search options');
3914
          return ConferenceSearchOptions.fromJson(response.data);
3915
        }
3916
3917
        Future < List < Conference Short Response >> get Conference sList ({
3918
          String? name,
          int? cityId,
3919
3920
          int? topicId,
3921
          String? startDate,
3922
          String? endDate,
          String? description,
3923
          String? contacts,
3924
          String? imageUrl,
3925
3926
        }) async {
3927
          final response = await dio.get('/conferences list',
             queryParameters: {
            'name': name,
3928
3929
            'cityId': cityId,
3930
            'topicId': topicId,
3931
            'startDate': startDate,
            'endDate': endDate,
3932
            'description': description,
3933
3934
            'contacts': contacts,
```

```
3935
            'imageUrl': imageUrl,
3936
          });
3937
3938
          return (response.data as List < dynamic >)
3939
               .map((item) => ConferenceShortResponse.fromJson(item)
               .toList();
3940
3941
        }
3942
3943
        Future < void > createConference (ConferenceRequest request) =>
            dio.post(
              '/create conference',
3944
3945
               data: request.toJson(),
3946
            );
3947
3948
        Future < Conference DetailResponse > getConference Details (
3949
            int conferenceId) async {
          final response = await _dio.get(
3950
             '/conference/$conferenceId',
3951
3952
          );
3953
          return ConferenceDetailResponse.fromJson(response.data);
3954
        }
3955
3956
        Future < void > updateConference(int conferenceId,
           ConferenceUpdatingRequest request) =>
3957
            dio.put(
3958
               '/conference/$conferenceId',
               data: request.toJson(),
3959
3960
            );
3961
        Future < void > deleteConference(int conferenceId) => dio.
3962
           post (
3963
               '/delete conference/$conferenceId',
3964
            );
3965
3966
3967
      main.dart
      import 'package: conference app/features/di/app providers.dart
3968
3969
      import 'package: flutter/material.dart';
      import 'package: flutter_riverpod / flutter_riverpod . dart ';
3970
```

```
3971
3972
      import 'features/auth/ui/auth screen.dart';
3973
3974
      void main() {
3975
        runApp(const MyApp());
3976
3977
      class MyApp extends StatelessWidget {
3978
3979
        const MyApp({super.key});
3980
3981
        @override
3982
        Widget build (BuildContext context) {
3983
          return ProviderScope (
3984
            child: Consumer(
               builder: (_, ref, __) => MaterialApp(
3985
                 title: 'Flutter Demo',
3986
3987
                 navigatorKey: ref.watch(AppProviders.navigatorKey),
3988
                 theme: ThemeData(
3989
                   colorScheme: ColorScheme.fromSeed(seedColor:
                      Colors . deepPurple),
3990
                   useMaterial3: true,
3991
                 ),
3992
                home: const LoginForm(),
3993
              ),
3994
            ),
3995
          );
3996
        }
3997
```