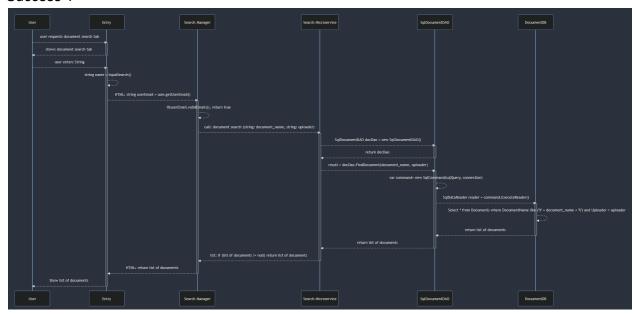
### Success 1



# sequenceDiagram

User-->>+Entry: user requests document search tab

Entry-->>-User: shows document search tab

User-->>+Entry: user enters String

Entry-->>Entry: string name = InputSearch()

Entry-->>+Search Manager: HTML: string userEmail = user.getUserEmail()
Search Manager-->>Search Manager: if(userEmail.validEmail()), return true

Search Manager-->>+Search Microservice: call: document search (string: document\_name, string: uploader)

Search Microservice-->>+SqlDocumentDAO: SqlDocumentDAO docDao = new SqlDocumentDAO();

SqlDocumentDAO-->>-Search Microservice: return docDao

Search Microservice-->>+SqlDocumentDAO: result =

docDao.FindDocument(document name, uploader)

SqlDocumentDAO-->>SqlDocumentDAO: var command= new SqlCommand(sqlQuery, connection)

SqlDocumentDAO-->>+DocumentDB: SqlDataReader reader = command.ExecuteReader()

DocumentDB:->>DocumentDB: Select \* from Documents where DocumentName like ('%' + document\_name + '%') and (Uploader = uploader or Shared = uploader)

DocumentDB-->>-SqlDocumentDAO: return list of documents

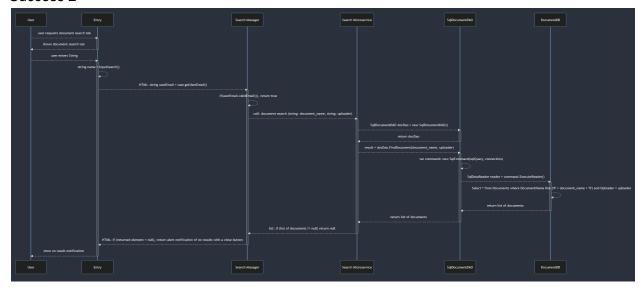
SqlDocumentDAO-->>-Search Microservice: return list of documents

Search Microservice-->>-Search Manager: list: if (list of documents != null) return list of documents

Search Manager-->>-Entry: HTML: return list of documents

Entry-->>-User: Show list of documents

### Success 2



## sequenceDiagram

User-->>+Entry: user requests document search tab

Entry-->>-User: shows document search tab

User-->>+Entry: user enters String

Entry-->>Entry: string name = InputSearch()

Entry-->>+Search Manager: HTML: string userEmail = user.getUserEmail() Search Manager-->>Search Manager: if(userEmail.validEmail()), return true

Search Manager-->>+Search Microservice: call: document search (string: document\_name, string: uploader)

Search Microservice-->>+SqlDocumentDAO: SqlDocumentDAO docDao = new SqlDocumentDAO();

SqlDocumentDAO-->>-Search Microservice: return docDao

Search Microservice-->>+SqlDocumentDAO: result =

docDao.FindDocument(document name, uploader)

SqlDocumentDAO-->>SqlDocumentDAO: var command= new SqlCommand(sqlQuery, connection)

SqlDocumentDAO-->>+DocumentDB: SqlDataReader reader = command.ExecuteReader()

DocumentDB:->>DocumentDB: Select \* from Documents where DocumentName like ('%' + document\_name + '%') and (Uploader = uploader or Shared = uploader)

DocumentDB-->>-SqlDocumentDAO: return list of documents

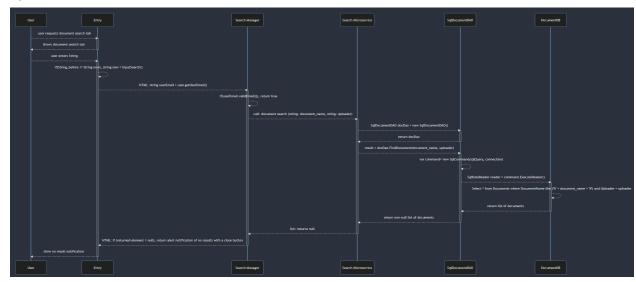
SqlDocumentDAO-->>-Search Microservice: return list of documents

Search Microservice-->>-Search Manager: list: if (list of documents = null) return null

Search Manager-->>-Entry: HTML: if (returned element = null), return alert notification of no results with a close button

Entry-->>-User: show no result notification

Fail 1



## sequenceDiagram

User-->>+Entry: user requests document search tab

Entry-->>-User: shows document search tab

User-->>+Entry: user enters String

Entry-->>Entry: if(String\_before != String now), string now = InputSearch() Entry-->>+Search Manager: HTML: string userEmail = user.getUserEmail() Search Manager-->>Search Manager: if(userEmail.validEmail()), return true

Search Manager-->>+Search Microservice: call: document search (string: document\_name, string: uploader)

Search Microservice-->>+SqlDocumentDAO: SqlDocumentDAO docDao = new SqlDocumentDAO();

SqlDocumentDAO-->>-Search Microservice: return docDao

Search Microservice-->>+SqlDocumentDAO: result =

docDao.FindDocument(document name, uploader)

SqlDocumentDAO-->>SqlDocumentDAO: var command= new SqlCommand(sqlQuery, connection)

SqlDocumentDAO-->>+DocumentDB: SqlDataReader reader = command.ExecuteReader()

DocumentDB:->>DocumentDB: Select \* from Documents where DocumentName like ('%' + document name + '%') and (Uploader = uploader or Shared = uploader)

DocumentDB-->>-SqlDocumentDAO: return list of documents

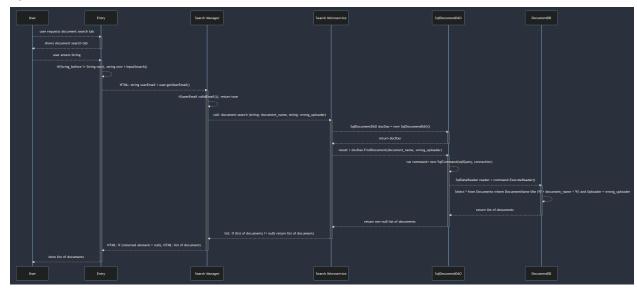
SqlDocumentDAO-->>-Search Microservice: return non-null list of documents

Search Microservice-->>-Search Manager: list: returns null

Search Manager-->>-Entry: HTML: if (returned element = null), return alert notification of no results with a close button

Entry-->>-User: show no result notification

Fail 2



### sequenceDiagram

User-->>+Entry: user requests document search tab

Entry-->>-User: shows document search tab

User-->>+Entry: user enters String

Entry-->>Entry: if(String\_before != String now), string now = InputSearch() Entry-->>+Search Manager: HTML: string userEmail = user.getUserEmail() Search Manager-->>Search Manager: if(userEmail.validEmail()), return true

Search Manager-->>+Search Microservice: call: document search (string: document\_name, string: wrong\_uploader)

Search Microservice-->>+SqlDocumentDAO: SqlDocumentDAO docDao = new SqlDocumentDAO();

SqlDocumentDAO-->>-Search Microservice: return docDao

Search Microservice-->>+SqlDocumentDAO: result =

docDao.FindDocument(document name, wrong uploader)

SqlDocumentDAO-->>SqlDocumentDAO: var command= new SqlCommand(sqlQuery, connection)

SqlDocumentDAO-->>+DocumentDB: SqlDataReader reader = command.ExecuteReader()

DocumentDB:->>DocumentDB: Select \* from Documents where DocumentName like ('%' + document\_name + '%') and (Uploader = wrong\_uploader or Shared = wrong\_uploader)

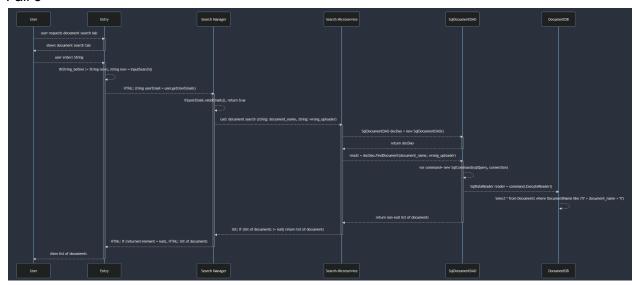
DocumentDB-->>-SqlDocumentDAO: return list of documents

SqlDocumentDAO-->>-Search Microservice: return non-null list of documents

Search Microservice-->>-Search Manager: list: if (list of documents != null) return list of documents

Search Manager-->>-Entry: HTML: if (returned element = null), HTML: list of documents Entry-->>-User: show list of documents

Fail 3



# sequenceDiagram

User-->>+Entry: user requests document search tab

Entry-->>-User: shows document search tab

User-->>+Entry: user enters String

Entry-->>Entry: if(String before != String now), string now = InputSearch()

Entry-->>+Search Manager: HTML: string userEmail = user.getUserEmail()

Search Manager-->>Search Manager: if(userEmail.validEmail()), return true

Search Manager-->>+Search Microservice: call: document search (string: document\_name, string: wrong\_uploader)

Search Microservice-->>+SqlDocumentDAO: SqlDocumentDAO docDao = new SqlDocumentDAO();

SqlDocumentDAO-->>-Search Microservice: return docDao

Search Microservice-->>+SqlDocumentDAO: result =

docDao.FindDocument(document name, wrong uploader)

SqlDocumentDAO-->>SqlDocumentDAO: var command= new SqlCommand(sqlQuery, connection)

SqlDocumentDAO-->>+DocumentDB: SqlDataReader reader = command.ExecuteReader()

DocumentDB:->>DocumentDB: Select \* from Documents where DocumentName like ('%' + document name + '%')

SqlDocumentDAO-->>-Search Microservice: return non-null list of documents

Search Microservice-->>-Search Manager: list: if (list of documents != null) return list of documents

Search Manager-->>-Entry: HTML: if (returned element = null), HTML: list of documents Entry-->>-User: show list of documents