

# Part 1 Assignment Report

**Group Name:** Promise

**Group Members:** Ze Yu, Lijia Liu, Kaihang Zhu

<b>Member</b>	<b>Main Task</b>	<b>Other Contributions</b>
Ze Yu	Member 1: socket.io, nodeJS server, the chat/annotation interface	Router configuration, Dynamically news display, Logic service design.
Kaihang Zhu	Member 2: service worker, MongoDB	
Lijia Liu	Member 3: IndexedDb, Axios communication, Swagger documentation	

**GitHub Repository:** <https://github.com/Maxyz123/promise>

## =Features by Member 1 Ze Yu=

### 1. Socket.io

zeyu, you are in room: R9827

Report by tom on 2022/4/13



Click to Delete the Picture

Type:  Set type

tom joined room R9827

zeyu: Hi Tom

tom: Hi Ze Yu

### Chat Room Socket

zeyu, you are in room: R9827

tom, you are in room: R9827

Report by tom on 2022/4/13

Report by tom on 2022/4/13



Sync Annotation socket

zeyu, you are in room: R9827

## Report by tom on 2022/4/13



Click to Delete the Picture



James Patrick Page OBE is an English musician, songwriter, multi-instrumentalist, and record producer who achieved international success as the guitarist and founder of the English rock band Led Zeppelin.  
[Link to Webpage](#)

tom joined room R9827

zeyu: Hi Tom

tom: Hi Ze Yu

zeyu: Has pushed a new searching result about **Robert Plant** to the Panel

zeyu: Has pushed a new searching result about **Eric Clapton** to the Panel

zeyu: Has pushed a new searching result about **Jimmy Page** to the Panel

## Searching result sync through socket

## 2. Node JS Server

A screenshot of a code editor (Visual Studio Code) displaying a file named 'index.js'. The code is written in Node.js using Express.js. It defines a router and routes for the '/' path, handling GET and POST requests. The GET handler renders a template 'index' with a title and an image. The POST handler also renders the same template with a different title. The code uses ES6 syntax like arrow functions and imports. The project structure on the left shows files like 'app.js', 'database.js', 'error.ejs', 'index.ejs', 'mainPage.ejs', 'newReport.ejs', 'routes/index.js', 'style.css', and 'socket.io.js'.

```
var express = require('express');
var router = express.Router();

var story = require('../controllers/stories');

/* GET home page. */
router.get( path: '/', handlers: function(req: Request<P, ResBody, ReqBody, ReqQuery, Locals>, res: Response) {
    res.render( view: 'index', options: { title: 'Image Browsing', image: ''});
});

router.route( prefix: '/index')
    .get( handlers: function (req, res){
        res.render('index',{title: 'Image Browsing', image: ''});
    })
    .post( handlers: function (req,res){
        res.render('index',{title: 'Start your new Chat Room!', image: req.body.imageUrl});
    });

//Main Page
router.route( prefix: '/mainPage')
    .get( handlers: function (req,res){
        res.render('mainPage',{title: "News Center"});
    })
    .post(story.getData);

//New Report
```

Router Configuration

## News Center

Welcome to the News Reports Center!

You can click an interested title or picture to start your Chat Room!

[Get News](#)

zeyu reported undefined at 2022-04-11T23:31:43.346Z

This is the first report



## News Center

Welcome to the News Reports Center!

You can click an interested title or picture to start your Chat Room!

[Get News](#)



tom reported Sheffield Report at 2022-04-12T10:41:54.750Z

This is the Sheffield report!



Dynamically Get new Reports

# Start your new Chat Room!

Please insert the id of the Room you want to Join, if you do not have a room id, click Generate Room

Your name

Your room  [Generate Room](#)

Image (URL)

[Connect](#)

[Go to main Page](#)

[Go to Report News](#)

Pass the parameters between Pages for convenience

### 3. Chat/Annotation Interface and Knowledge Graph

localhost:3000/index zeyu, you are in room: R9827

Report by zeyu on 2022/4/13

Click to Delete the Picture

Type: Person Set type

Search for: Brian May

of type: Person

**Brian May**  
Musician  
Brian Harold May CBE is an English musician, singer, songwriter, and astrophysicist who achieved ...  
Source: Wikipedia, available under License.

**Brian Mayes**  
American professional wrestler  
Brian Myers is an American professional wrestler and promoter. He is currently signed to Impact W...  
Source: Wikipedia, available under License.

chat: [ ] Back to main Page Back to Index

Report by zeyu on 2022/4/13

Click to Delete the Picture

Type: Person Set type

Search for: Brian May

of type: Person

**Brian May**  
id: /m/0bkg4

chat: [ ] Back to main Page Back to Index

Report by zeyu on 2022/4/13

Click to Delete the Picture

chat: [He was the lead guitarist of the rock band] Send

Back to main Page Back to Index

zeyu: Has pushed a new searching result about Brian May to the Panel!

zeyu: Brain May is one of my favorite Musician!

Screen shot of the Chat Room and Utilization of the Knowledge Graph

## =Features by Member 2 Kaihang Zhu=

MongoDB

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### News Upload

Feel Free to Upload Your New Report to the News Center!

Author name:

Title:

Report Text:

Image (URL) url:

[Back to main Page](#) [Back to Index](#)

---

Store new story information into MongoDB database

localhost:3000 显示

New report: title by Author name. Time:  
2022-04-22T21:56:15.570Z

Notice of upload data successfully

The screenshot shows the MongoDB Compass interface. On the left, the sidebar displays the database structure: 'localhost:27017' (HOST), 'Standalone' (CLUSTER), and 'MongoDB 5.0.6 Community' (EDITION). Under 'My Queries' and 'Databases', there are lists of available databases: admin, config, local, and stories. The 'stories' database is currently selected. The main panel is titled 'Collections' and shows a single collection named 'stories'. Below the collection name, it provides storage statistics: Storage size: 20.48 kB, Documents: 1, Avg. document size: 139.00 B, Indexes: 1, and Total index size: 20.48 kB. A 'Create collection' button is located at the top of the collections list.

A database named stories will be created if there is none

This screenshot shows the MongoDB Compass interface focusing on the 'stories' collection within the 'stories' database. The sidebar remains the same as the previous screenshot. The main panel shows the 'Documents' tab for the 'stories.stories' collection. It displays one document with the following fields and values:

```
_id: ObjectId('6263258fd5f5e2e86f10862017')
author_name: 'nass'
report_title: 'title'
report_text: 'report_text'
image_url: 'url'
date: 2022-04-22T21:56:15.570+00:00
__v: 0
```

At the top right, it indicates 1 DOCUMENTS and 1 INDEXES. Below the document list, there are tabs for Aggregations, Schema, Explain Plan, Indexes, and Validation. A 'FILTER' bar is present, along with 'OPTIONS', 'FIND', 'RESET', and a refresh button. The status bar at the bottom right shows 'Displaying documents 1 - 1 of 1'.

The data added into the database

## News Center

Welcome to the News Reports Center!

You can click an interested title or picture to start your Chat Room!

[Get News](#)

name reported title at 2022-04-22T21:56:15.570Z

report\_text



Press “Get News” button to get stories

## =Features by Member 3 Lijia Liu=

### IndexedDB

The screenshot shows the Chrome DevTools Application tab open. On the left, the Storage section is expanded, showing Local Storage, Session Storage, and IndexedDB. The IndexedDB section is expanded, showing a database named "db - http://localhost:8080". Inside this database, there are two stores: "store\_drawn" and "store\_story". The "store\_story" store has entries for "resultId" and "multiEntry". Below the storage section, the Cache section is partially visible. On the right, the IndexedDB panel displays the structure of the "store\_story" store. At the bottom, the Console tab shows several log messages related to IndexedDB operations.

leo, you are in room: R8658

Report by leo on 2022/4/13

Click to Delete the Picture

Type:  Set type

Key path: "resultId\*  
multiEntry"

Application

- Manifest
- Service Workers
- Storage

Storage

- Local Storage
- Session Storage
- IndexedDB

IndexedDB

- db - http://localhost:8080
  - store\_drawn
    - userId
  - store\_graph
    - resultId
  - store\_story
    - story
      - store\_text
        - userId

IndexedDB

Learn more

Key path: "resultId\*  
multiEntry"

Cache

- Cache Storage
- Back/forward cache

Console Issues What's New

db created database.js:61

Starting Query... database.js:189

Starting Query... database.js:214

inserting worked!! index.js:65

inserting worked!! index.js:68

### Report by leo on 2022/4/13



Type:  Set type  
leo: hello

chat:  [Send]  
[Back to main Page] [Back to Index]

DevTools is now available in Chinese. Always match Chrome's language. Switch DevTools to Chinese. Don't show again.

Application

- Manifest
- Service Workers
- Storage
  - Local Storage
  - Session Storage
  - IndexedDB
    - db - http://localhost:8080
    - store\_drawn
      - userId
      - resultId
    - store\_story
      - story
    - store\_text
      - userId
  - Web SQL
  - Cookies
  - Trust Tokens
  - Interest Groups

Total entries: 1 | Key generator value: 2

Console Issues What's New

```
inserting worked!!  
inserting worked!!  
inserting: {"userId": "leo", "text": "<b>leo:</b> hello"}  
added item to the store! {"userId": "leo", "text": "<b>leo:</b> hello"}  
inserting worked!!
```

### Report by leo on 2022/4/13



Type:  Set type  
leo: hello

chat:  [Send]  
[Back to main Page] [Back to Index]

DevTools is now available in Chinese. Always match Chrome's language. Switch DevTools to Chinese. Don't show again.

Application

- Manifest
- Service Workers
- Storage
  - Local Storage
  - Session Storage
  - IndexedDB
    - db - http://localhost:8080
    - store\_drawn
      - userId
      - resultId
      - story
      - userId
      - store\_graph
      - story
      - userId
  - Web SQL
  - Cookies
  - Trust Tokens
  - Interest Groups

Total entries: 138 | Key generator value: 139

Console Issues What's New

```
rY":125,"color":"red","thickness":4}  
inserting worked!!  
added item to the store!  
{ "room": "R8658", "userId": "leo", "width": 587, "height": 391.66385135135135, "prevX": 245, "prevY": 125, "currX": 245, "currY": 126, "color": "red", "thickness": 4}  
inserting worked!!
```

The annotations have been cached

**News Upload**

Feel Free to Upload Your New Report to the News Center!

Author name:

Title:

**Report Text:**

```
web
```

Image (URL):

DevTools Application panel showing the storage system. The 'story' store contains one item with key 'leo' and primary key 'id' (value 1). The item's value is a JSON object: {name: 'leo', text: 'web', date: 'Wed Apr 13 2022 21:47:17 GMT+0100 (英国夏令时间)'}, with image\_url: './images/cathedral.jpg'.

Console log output:

```
inserting: {"name": "leo", "text": "web", "image_url": "./images/cathedral.jpg", "date": "Wed Apr 13 2022 21:47:17 GMT+0100 (英国夏令时间)"}
db created
added item to the store!
{"name": "leo", "text": "web", "image_url": "./images/cathedral.jpg", "date": "Wed Apr 13 2022 21:47:17 GMT+0100 (英国夏令时间)"}
inserting worked!!
```

The whole story inclusive of image, text, title, etc have been cached

leo, you are in room: R8658

**Report by leo on 2022/4/13**



Click to Delete the Picture



DevTools Application panel showing the storage system. The 'resultId' store contains two items: one with id /g/11f11pply3 (primary key id 1) and another with id /m/01jz6d (primary key id 2). Both items have resultUrl: "https://en.wikipedia.org/wiki/LeBron\_James", resultName: "LeBron James", resultPanel: "block", and resultDescription: "LeBron Raymone James Sr. is an American professional basketball player for the Los Angeles Lakers of the National Basketball Association.".

Console log output:

```
LeBron Raymone James Sr. is an American professional basketball player for the Los Angeles Lakers of the National Basketball Association. "", "resultUrl": "https://en.wikipedia.org/wiki/LeBron_James", "resultName": "LeBron James", "resultPanel": "block"
added item to the store! {"resultId": "/m/01jz6d", "resultName": "LeBron Raymone James Sr.", "resultPanel": "block", "resultDescription": "LeBron Raymone James Sr. is an American professional basketball player for the Los Angeles Lakers of the National Basketball Association.", "resultUrl": "https://en.wikipedia.org/wiki/LeBron_James", "resultPanel": "block"}
inserting worked!!
```

The Knowledge Graph have been cached

## Report by leo on 2022/4/13



Click to Delete the Picture

Type:  Set type  
leo: w

DevTools is now available in Chinese! Always match Chrome's language Switch DevTools to Chinese Don't show again

Application C Start from key

	#	Key (Key path: "userId")	Primary key (Key path: "id")	Value
Manifest	0	"leo"	1	> {room: 'R8658', userId: 'u'}
Service Workers	1	"leo"	2	> {room: 'R8658', userId: 'u'}
Storage	2	"leo"	3	> {room: 'R8658', userId: 'u'}
Storage	3	"leo"	4	> {room: 'R8658', userId: 'u'}
Storage	4	"leo"	5	> {room: 'R8658', userId: 'u'}
Storage	5	"leo"	6	> {room: 'R8658', userId: 'u'}
IndexedDB	6	"leo"	7	> {room: 'R8658', userId: 'u'}
IndexedDB	7	"leo"	8	> {room: 'R8658', userId: 'u'}
IndexedDB	8	"leo"	9	> {room: 'R8658', userId: 'u'}
IndexedDB	9	"leo"	10	> {room: 'R8658', userId: 'u'}
IndexedDB	10	"leo"	11	> {room: 'R8658', userId: 'u'}
IndexedDB	11	"leo"	12	> {room: 'R8658', userId: 'u'}
IndexedDB	12	"leo"	13	> {room: 'R8658', userId: 'u'}
IndexedDB	13	"leo"	14	> {room: 'R8658', userId: 'u'}
IndexedDB	14	"leo"	15	> {room: 'R8658', userId: 'u'}
Web SQL	15	"leo"	16	> {room: 'R8658', userId: 'u'}
Cookies	16	"leo"	17	> {room: 'R8658', userId: 'u'}
Trust Tokens	17	"leo"	18	> {room: 'R8658', userId: 'u'}
Interest Groups	18	"leo"	19	> {room: 'R8658', userId: 'u'}
Cache	19	"leo"	20	> {room: 'R8658', userId: 'u'}
Cache Storage	20	"leo"	21	> {room: 'R8658', userId: 'u'}

Total entries: 259 | Key generator value: 260

Console Issues What's New

chat:  Send

Back to main Page Back to Index

When the user comes back to a story they have annotated, all the information above will be shown from the cache.

## Swagger

swagger 4.0.0 OAS3

the solution

Terms of service

COM3504/6504 – Website  
Send email to COM3504/6504  
Apache 2.0

Servers

[http://localhost:3000/ – the only Local server](http://localhost:3000/)

Create Stories

POST /stories

Store Chat Text

POST /chat\_text

Store Graph Data

POST /graph\_data

POST /stories

Create Stories

Parameters

No parameters

Request body required

application/json

Example Value | Schema

```
{ "author_name": "Leo", "report_title": "STORY" }
```

Responses

Code	Description	Links
200	New stories were created	No links

Media type

application/json

Controls Accept header.

Example Value | Schema

## doc for post/stories

Responses

Code	Description	Links
200	New stories were created	No links

Media type

application/json

Controls Accept header.

Example Value | Schema

```
{"author_name: Leo, report_title: STORY, report_text: This is a story, image_url: ./images/cathedral.jpg"}
```

401

Missing parameters

Media type

application/json

Example Value | Schema

```
{ "message": "no report title provided", "internal_code": "missing_parameters" }
```

author_name >
report_title >
report_text >
image_url >
<b>userId &gt;</b>
resultId >
resultName >
resultDescription >
resultUrl >
resultPanel >

## Schemas

author_name ✕ string example: Leo people who posted the story
report_title ✕ string example: STORY
report_text ✕ string example: This is a story the content of the story
image_url ✕ string example: ./images/cathedral.jpg link to image
userId ✕ string example: Leo who sent this chat
resultId ✕ string example: id: /m/01jz6d Id