HDip. In Computer Science (Online)
Module: ICT Skills 2

Assessment.

Assessment

- Lab work.
  - 1 submission.
  - End of term.   (July 17th).
  - 40 %
- Assignment/Project.
  - Submit mid-August. (August 23rd).
  - 60 %

Lab work

- **GitHub repository of your Movies Fan app.**
- **Git log history; must correspond to prescribed commits.**
- **Submit a text file with repo URL to Moodle**
  - **Upload link provided later.**

Assignment

- **Requirement: Choose one of the following:**
    1. **Extend the Movies fan app from the labs.**
        - **Use different GitHub repo from lab work.**
    2. **Design and develop a custom React app for the POI API or another open API.**
        - **Must use** create-react-app **and** Storybook**.**

- **Deliverables:**
    - **GitHub repository.**
        - **README - very important; must use template provided.**
        - **Git history - very important.**
    - **Demonstration (short video).**

Option 1 startup.

- **Steps:**
    1. **Delete** node_modules **folder of** moviesApp**.**
    2. **Make a copy of the** moviesApp **folder (**assignment **folder)**
    3. **Reinstall modules in** moviesApp**, if required.**

  With assignment **folder:**
    1. **Import into VS Code.**
    2. **From integrated terminal, type:**

       git remote remove origin
    3. **In GitHub, create a new repository.**
    4. **From integrated terminal, type:**

       git remote add origin <new-repo-url>

       npm install
    5. **Commence development.**

Grade bands.

- *Grade band:* **Good (40-55%)**

- Theme**: Foundation skill-set.**

- Characteristics**: New user features similar to existing.**

- Features (All of the following):
  - **UI:**
    - **Lists (Actors, Similar movies, Actor's movies, TV series).**
    - **Detail (Actor Bio, TV series).**
    - **Extensive hyperlinking.**
  - **Routing: Mix of static and parameterized URLs.**
  - **Data model: New entity type(s) ; ~3 (new) API endpoints.**

Grade bands.

- *Grade band:* **Very Good (55%-70%)**
- Theme**: Confident developer.**
- Characteristics**: Some original component and page designs.**

- Features (All of the following):
  - **UI:**
    - **Extended filtering; Sorting.**
    - **My Fantasy movie(s). ****
  - **Routing: Basic authentication (public & protected views and features).**
  - **Data model: Full caching.**
  - **Storybook support.**

Grade bands.

- *Grade band:* **Excellent (70%-85%)**
- Theme: **Independent learning.**
- Characteristics: **Independently researched and applied technologies/techniques not covered in the lectures.**

- Features:
  - **UI: Pagination (with caching); Playlists (multiple), Movie Search.**
  - **Routing: Robust authentication, e.g. Firebase.**
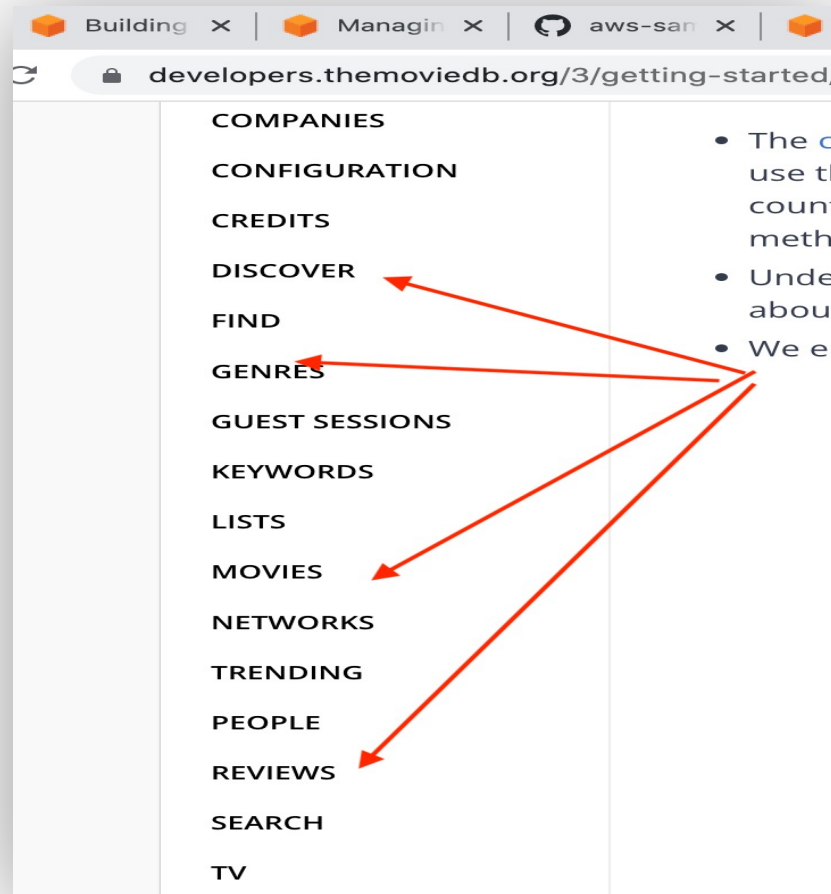 - **3rd party components.**

Grade bands.

- *Grade band:* **Outstanding (85+%)**
- Theme**: Full-stack.**

- **Features:**
  - **Server-side Persistence.**
    - **TMDB lists, Firebase, or other.**

TMDB endpoints

- Browse the docs at:

  https://developers.themoviedb.org/3/getting-started/introduction

TMDB endpoints

MOVIES

GET	Get Details
GET	Get Account States
GET	Get Alternative Titles
GET	Get Changes
GET	Get Credits
GET	Get External IDs
GET	Get Images
GET	Get Keywords
GET	Get Lists
GET	Get Recommendations
GET	Get Release Dates
GET	Get Reviews
GET	Get Similar Movies
GET	Get Translations
GET	Get Videos
GET	Get Watch Providers
POST	Rate Movie
DELETE	Delete Rating
GET	Get Latest
GET	Get Now Playing
GET	Get Popular
GET	Get Top Rated
GET	Get Upcoming

NETWORKS

TRENDING

PEOPLE

GET	Get Details
GET	Get Changes
GET	Get Movie Credits
GET	Get TV Credits
GET	Get Combined Credits
GET	Get External IDs
GET	Get Images
GET	Get Tagged Images
GET	Get Translations
GET	Get Latest
GET	Get Popular

Get Images

REVIEWS

SEARCH

TV

TMDB endpoints

- The docs detail how to request the related data.

People

Get Popular
GET /person/popular

Get the list of popular people on TMDB. This list updates daily.
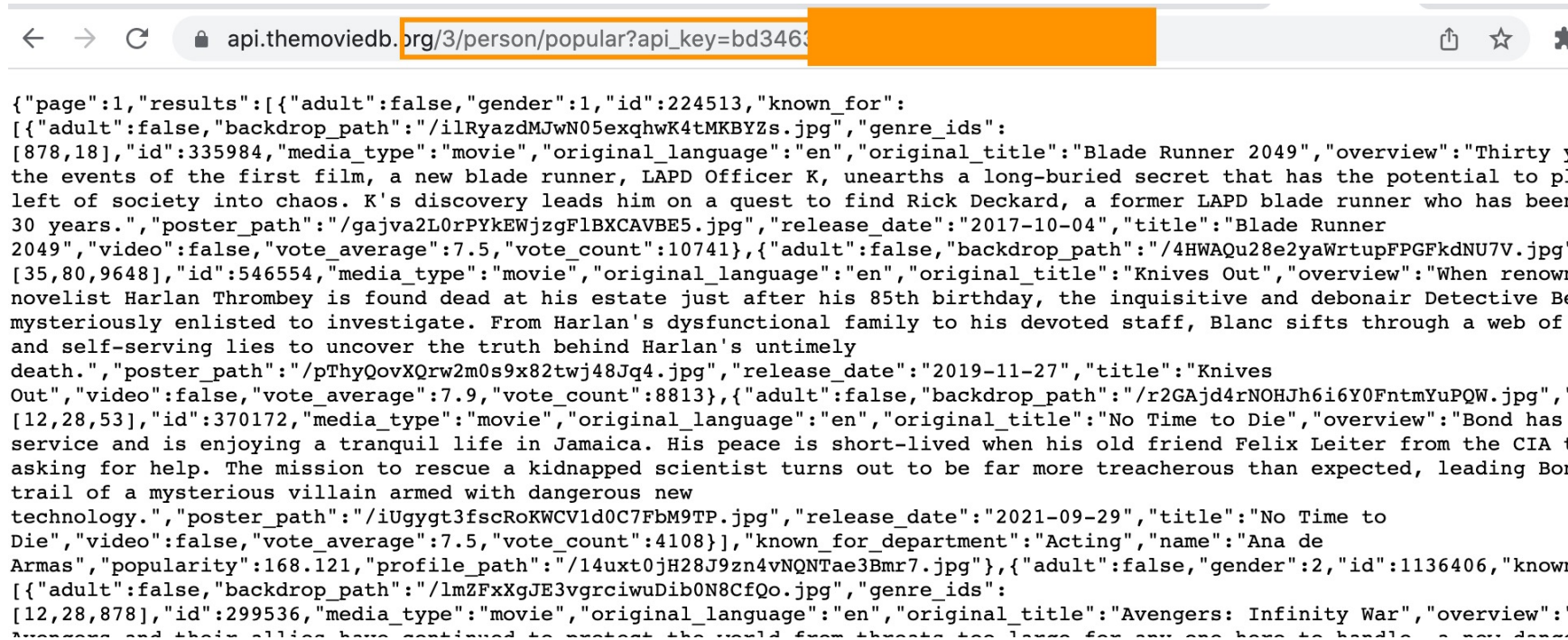
People

Get Movie Credits
GET /person/{person_id}/movie_credits
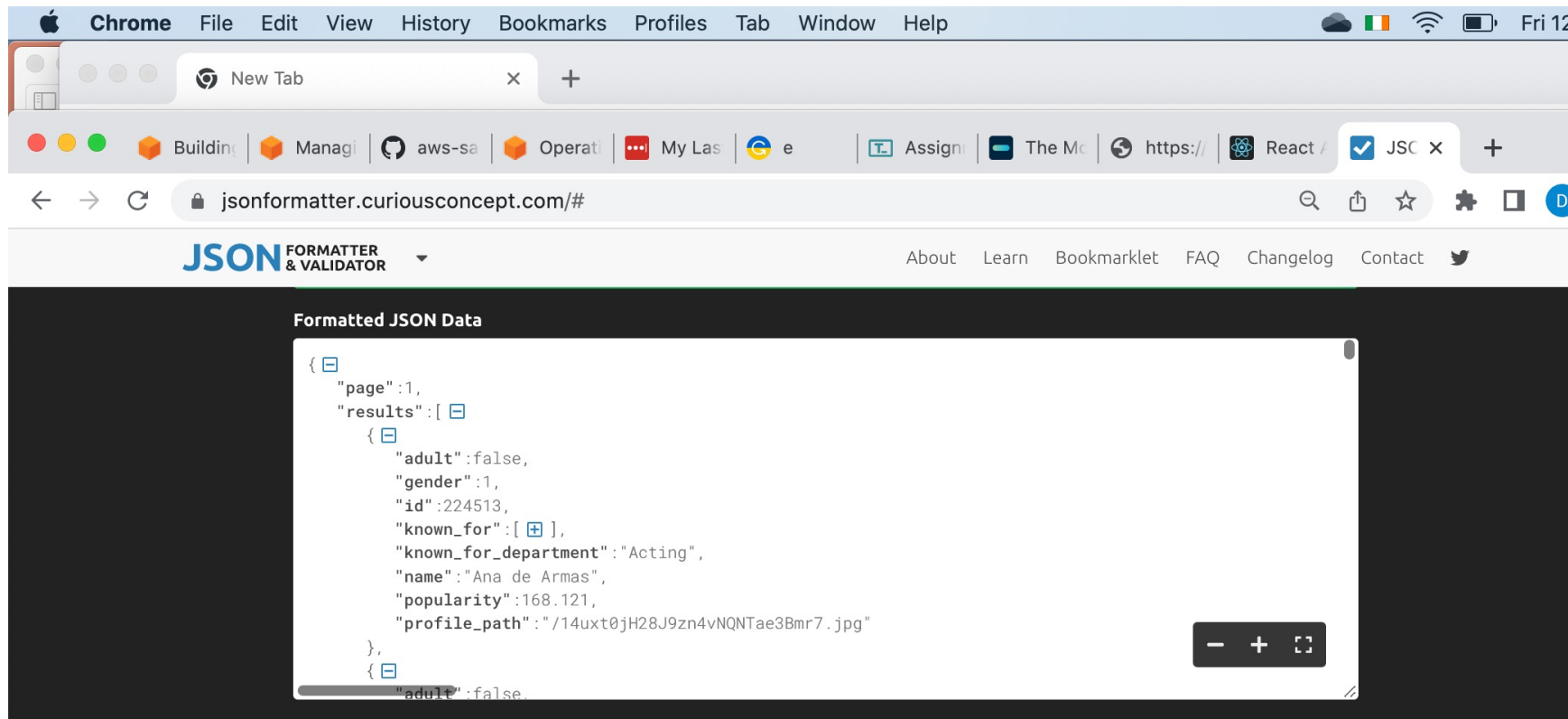
Get the movie credits for a person.

Endpoint responses

- **Understand the structure of an endpoint response.**
- **Use Postman or an equivalent too.l.**

{"page":1,"results":[{"adult":false,"gender":1,"id":224513,"known_for":
[{"adult":false,"backdrop_path":"/ilRyazdMJwN05exqhwK4tMKBYZs.jpg","genre_ids":
[878,18],"id":335984,"media_type":"movie","original_language":"en","original_title":"Blade Runner 2049","overview":"Thirty y
the events of the first film, a new blade runner, LAPD Officer K, unearths a long-buried secret that has the potential to pl
left of society into chaos. K's discovery leads him on a quest to find Rick Deckard, a former LAPD blade runner who has been
30 years.","poster_path":"/gajva2L0rPYkEWjzgFlBXCAVBE5.jpg","release_date":"2017-10-04","title":"Blade Runner
2049","video":false,"vote_average":7.5,"vote_count":10741},{"adult":false,"backdrop_path":"/4HWAQu28e2yaWrtupFPGFkdNU7V.jpg"
[35,80,9648],"id":546554,"media_type":"movie","original_language":"en","original_title":"Knives Out","overview":"When renown
novelist Harlan Thrombey is found dead at his estate just after his 85th birthday, the inquisitive and debonair Detective Be
mysteriously enlisted to investigate. From Harlan's dysfunctional family to his devoted staff, Blanc sifts through a web of
and self-serving lies to uncover the truth behind Harlan's untimely
death.","poster_path":"/pThyQovXQrw2m0s9x82twj48Jq4.jpg","release_date":"2019-11-27","title":"Knives
Out","video":false,"vote_average":7.9,"vote_count":8813},{"adult":false,"backdrop_path":"/r2GAjd4rNOHJh6i6Y0FntmYuPQW.jpg",
[12,28,53],"id":370172,"media_type":"movie","original_language":"en","original_title":"No Time to Die","overview":"Bond has
service and is enjoying a tranquil life in Jamaica. His peace is short-lived when his old friend Felix Leiter from the CIA t
asking for help. The mission to rescue a kidnapped scientist turns out to be far more treacherous than expected, leading Bon
trail of a mysterious villain armed with dangerous new
technology.","poster_path":"/iUgygt3fscRoKWCV1d0C7FbM9TP.jpg","release_date":"2021-09-29","title":"No Time to
Die","video":false,"vote_average":7.5,"vote_count":4108}],"known_for_department":"Acting","name":"Ana de
Armas","popularity":168.121,"profile_path":"/14uxt0jH28J9zn4vNQNTae3Bmr7.jpg"},{"adult":false,"gender":2,"id":1136406,"known
[{"adult":false,"backdrop_path":"/lmZFxXgJE3vgrciwuDib0N8CfQo.jpg","genre_ids":
[12,28,878],"id":299536,"media_type":"movie","original_language":"en","original_title":"Avengers: Infinity War","overview":"

Endpoint responses

- Format the JSON response to get a clear understanding of its structure

TMDB Movie Search support


```
export const getMovies = () => {
    return fetch(
        `https://api.themoviedb.org/3/discover/
        movie?api_key=${process.env.REACT_APP_TMDB_KEY}&language=en-US&include_adult=false&include_video=false&page=1`
    ).then((response) => {
```

opers.themoviedb.org/3/discover/movie-discover

Query String

api_key	string	default: <<api_key>>	required
language	string	Specify a language to query translatable fields with.	optional
		minLength: 2	
		pattern: ([a-z]{2})-([A-Z]{2})	
		default: en-US	
region	string	Specify a ISO 3166-1 code to filter release dates. Must be uppercase.	optional
		pattern: ^[A-Z]{2}$	
sort_by	string	Choose from one of the many available sort options.	optional
		Allowed Values: , popularity.asc, popularity.desc, release_date.asc, release_date.desc, revenue.asc, revenue.desc, primary_release_date.asc, primary_release_date.desc, original_title.asc, original_title.desc, vote_average.asc, vote_average.desc, vote_count.asc, vote_count.desc	
		default: popularity.desc	
certification_country	string	Used in conjunction with the certification filter, use this to specify a country with a valid certification.	optional

...show 32 more properties

Responses   application/json

| ● 200 | Schema   Example | ⤢ collapse all |
| ● 401 | object | |

Pagination.

```
export const getMovies = () => {
  return fetch(
    `https://api.themoviedb.org/3/discover/
    movie?api_key=${process.env.REACT_APP_TMDB_KEY}&language=en-US&include_adult=false&include_video=false&page=1`
  ).then((response) => {
    if (!response.ok) {
      throw new Error(response.json().message);
    }
    return response.json();
```

- **Applies to any page that displays a <u>list</u> of things – movies, actors.**
- **3rd party UI components.**
- **Caching – react-query support. See:**
  - **https://react-query.tanstack.com/guides/paginated-queries**
  - **https://react-query.tanstack.com/examples/pagination**

TMDB Persistence support.

-

KEYWORDS

LISTS

v4 or v3 lists?

GET   Get Details

GET   Check Item Status

POST   **Create List**

POST   Add Movie

POST   Remove Movie

POST   Clear List

DELETE Delete List

MOVIES

ACCOUNT

AUTHENTICATION

How do I generate a session id?

GET   Create Guest Session

GET   Create Request Token

POST   Create Session

POST   Create Session With Login

POST   Create Session (from v4 access to...

DELETE Delete Session

CERTIFICATIONS

CHANGES

Authentication

How do I generate a session id?

As outlined in the getting started guide, the basics to getting a user authenticated look like this:

1. Create a new request token
2. Get the user to authorize the request token
3. Create a new session id with the athorized request token

Part 1 and 3 should be fairly easy to understand but I'll walk through each step to make sure it's clear.

Step 1: Create a request token

The first step as a developer is to request a new token. This is a temporary token that is required to ask the permission to access their account. This token will auto expire after 60 minutes if it's not used.