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**Games App**

**Description :** My app fetches the list of games given the platform (pc, browser, all). On selecting a particular game, it provides more details like genre, developer, URL, release date etc.

**1. Implement a native Android application**

a**.** Has at least three different kinds of Views in your Layout.

My android application has TextView, EditView, and ImageView. See activity\_main.xml, activity\_detail.xml, item\_game.xml.

b. Requires input from the user

Screenshot before the game list have been fetched

A screenshot of a phone

AI-generated content may be incorrect.

Screenshot of the user searching game list for browser

A screen shot of a cell phone

AI-generated content may be incorrect.

c. Makes an HTTP request (using an appropriate HTTP method) to your web service.

My application does HTTP GET request in ApiClient.java. It can make two HTTP GET requests https://congenial-space-eureka-q74x66x5v94q24rr7-8080.app.github.dev/games?platform=<platform\_type> or https://congenial-space-eureka-q74x66x5v94q24rr7-8080.app.github.dev/game?id=<game\_id>.

https://congenial-space-eureka-q74x66x5v94q24rr7-8080.app.github.dev /games?platform=<platform\_type> searches for a list of games that belong to a particular platform.

https://congenial-space-eureka-q74x66x5v94q24rr7-8080.app.github.dev /game?id=<game\_id> retrieves the details of a selected game.

d. Receives and parses an XML or JSON formatted reply from your web service

[{"id":306,"title":"4Story","thumbnail":"https:\/\/www.freetogame.com\/g\/306\/thumbnail.jpg","short\_description":"A enjoyable MMORPG where you can customize your character, join guilds and battle other factions.","game\_url":"https:\/\/www.freetogame.com\/open\/4story","genre":"MMORPG","platform":"PC (Windows)","publisher":"Zemi Interactive","developer":"Zemi Interactive","release\_date":"2008-10-20","freetogame\_profile\_url":"https:\/\/www.freetogame.com\/4story"},{"id":181,"title":"8BitMMO","thumbnail":"https:\/\/www.freetogame.com\/g\/181\/thumbnail.jpg","short\_description":"A free to play retro\u00ad-style 2D MMO and a giant construction sandbox! ","game\_url":"https:\/\/www.freetogame.com\/open\/8bitmmo","genre":"MMORPG","platform":"PC (Windows), Web Browser","publisher":"Archive Entertainment ","developer":"Archive Entertainment ","release\_date":"2015-01-26","freetogame\_profile\_url":"https:\/\/www.freetogame.com\/8bitmmo"},{"id":265,"title":"9Dragons","thumbnail":"https:\/\/www.freetogame.com\/g\/265\/thumbnail.jpg","short\_description":"A martial arts themed MMORPG set in China during the Ming Dynasty.","game\_url":"https:\/\/www.freetogame.com\/open\/9dragons","genre":"MMORPG","platform":"PC (Windows)","publisher":"Battlezone","developer":"JoongWon Games","release\_date":"2007-05-09","freetogame\_profile\_url":"https:\/\/www.freetogame.com\/9dragons"},{"id":533,"title":"A.V.A Global","thumbnail":"https:\/\/www.freetogame.com\/g\/533\/thumbnail.jpg","short\_description":"A.V.A is a free-to-play online first-person shooter with multiple game modes, unique customizations, as well as PvP and PvE gameplay.","game\_url":"https:\/\/www.freetogame.com\/open\/ava","genre":"Shooter","platform":"PC (Windows)","publisher":"NEOWIZ","developer":"NEOWIZ","release\_date":"2022-08-24","freetogame\_profile\_url":"https:\/\/www.freetogame.com\/ava"},{"id":319,"title":"Ace Online","thumbnail":"https:\/\/www.freetogame.com\/g\/319\/thumbnail.jpg","short\_description":"A free to play fast action 3D sci-fi MMO where players control space fighters jets.","game\_url":"https:\/\/www.freetogame.com\/open\/ace-online","genre":"Shooter","platform":"PC (Windows)","publisher":"Suba Games","developer":"MasangSoft","release\_date":"2008-08-29","freetogame\_profile\_url":"https:\/\/www.freetogame.com\/ace-online"},{"id":89,"title":"AdventureQuest 3D","thumbnail":"https:\/\/www.freetogame.com\/g\/89\/thumbnail.jpg","short\_description":"A free to play cross-platform MMORPG from the creators of the original 2D RPG game.","game\_url":"https:\/\/www.freetogame.com\/open\/adventurequest-3d","genre":"MMORPG","platform":"PC (Windows)","publisher":"Artix Entertainment","developer":"Artix Entertainment","release\_date":"2016-10-19","freetogame\_profile\_url":"https:\/\/www.freetogame.com\/adventurequest-3d"},{"id":527,"title":"Aero Tales Online","thumbnail":"https:\/\/www.freetogame.com\/g\/527\/thumbnail.jpg","short\_description":"Aero Tales Online: The World is a free-to-play 3D anime-style MMORPG with PvP and PvE elements. The game revolves around the \u201cmysterious story of the Key of Skylight\u201d.","game\_url":"https:\/\/www.freetogame.com\/open\/aero-tales-online","genre":"MMORPG","platform":"PC (Windows)","publisher":"Anisage Games","developer":"Anisage Games","release\_date":"2022-08-01","freetogame\_profile\_url":"https:\/\/www.freetogame.com\/aero-tales-online"},{"id":301,"title":"Age of Conan: Unchained","thumbnail":"https:\/\/www.freetogame.com\/g\/301\/thumbnail.jpg","short\_description":"A award \u00adwinning massively multiplayer online game that has received critical acclaim.","game\_url":"https:\/\/www.freetogame.com\/open\/age-of-conan","genre":"MMORPG","platform":"PC (Windows)","publisher":"Funcom","developer":"Funcom","release\_date":"2008-05-20","freetogame\_profile\_url":"https:\/\/www.freetogame.com\/age-of-conan"}]

e. Displays new information to the user

List of games returned when the user types “pc” platform.

A screenshot of a phone

AI-generated content may be incorrect.

User selects a specific game

A screenshot of a phone

AI-generated content may be incorrect.

f. Is repeatable (I.e. the user can repeatedly reuse the application without restarting it.)

The user can enter another platform “browser” and hit Submit.

A screenshot of a video game

AI-generated content may be incorrect.

User selects a specific game  
A screenshot of a phone

AI-generated content may be incorrect.

**2. Implement a web service**

a. Implement a simple (can be a single path) API.

My web app consists of the following:

Controller: GameServlet -> Handles the API requests

Model: MongoLogger -> Logic to store the metrics to MongoDB

View: Dashboard.jsp -> Shows the dashboard

b. Receives an HTTP request from the native Android application

My game servlet receives HTTP GET requests with the platform parameter or the id of the game to get the details.

c. Executes business logic appropriate to your application. This includes fetching XML or JSON information from some 3rd party API and processing the response.

The GameServlet makes request to the <https://www.freetogame.com/api/games> or

<https://www.freetogame.com/api/game> api depending on if the game list for a particular platform needs to be retrieved or details of a specific game needs to be retrieved.

d. Replies to the Android application with an XML or JSON formatted response. The schema of the response can be of your own design.

The GameServlet returns the list of games to the Android App in the JSON format.

##### 4. Log useful information

1. **Timestamp**: The timestamp when the request was received from the mobile phone.
2. **Platform Query**: The platform query parameter value used for filtering games (e.g., "pc", "browser", or "all").
3. **Device Model**: The device model from the request header (X-Device-Model), which identifies the mobile device making the request.
4. **Client IP**: The IP address of the client (mobile phone) making the request.
5. **API Request Time**: The timestamp when the request was sent to the third-party API (FreeToGame API).
6. **API Response Time**: The timestamp when the third-party API responded with the data.
7. **Third-Party Status**: The HTTP status code returned by the third-party API (e.g., 200 for success, 500 for error).
8. **Mobile Response Time**: The timestamp when the mobile app received the response from the backend server after interacting with the third-party API.
9. **Response Size**: The size (in bytes) of the response received from the third-party API, which is sent back to the mobile phone.
10. **Title** (for extended request with game details): The title of the game when handling the /game endpoint to retrieve details about a specific game that is most viewed by the users.

#### 5. Store the log information in a database

"mongodb+srv://sapatil:Balumama%40190496@distributedassignment.lw4mq.mongodb.net/?retryWrites=true&w=majority&appName=DistributedAssignment";

#### 6. Display operations analytics and full logs on a web-based dashboard

A screenshot of a computer

AI-generated content may be incorrect.

A screenshot of a computer

AI-generated content may be incorrect.