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| Android Application Project  Basketball Team Application  By Louis Devèze & Victor Grégoire |

**Introduction:**

For this project, we choose to make an application to help basketball coaches of the NBA to see the statistics of their teams and the matches played by interacting with a database. In this report, we introduce the whole architecture of the app and the design choices. We also describe the functionalities we implemented and provide screenshots of what we’ve done.

**List of functions implemented:**

* Nice Design with Fragments and landscape layout for each view. Each Fragment communicates with the main Activity by interfaces and the toolbar fragment allows smooth navigation between content views.
* Retrieve External database information within JDBC Connection to a local WampServer
* Push some information about teams in the External Database
* Save External Data into a Local SQLite Database server and retrieve information locally saved
* Use of Async Tasks to do each information load into the application
* Geolocation of a match using the Google Cloud API Key to do reverse Geolocation and see the address on the map
* Take Photos with the default Photo application of the system and visualize them into a Gallery
* Shared Preferences to select the language of the app
* Intuitive and Ergonomic Design 😉

**Possible improvements:**

* Add a possibility to update or delete information of the database using the application
* Stock videos on a Server and retrieve them to look them
* Optimize the way we use Fragments inside main Application, to let the Fragment Manager recycle them if possible

**Code Snippets:**

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| **Interface Listener for Toolbar** | **Landscape – Portrait** |

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| **Fragment Manager – Recreate Fragment and add it with Transactions** |

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| Database External Manager (Local Host) |

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| Database External Manager Request (Local Host) |
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| Database External Async Task Request (Local Host) |

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| Database External Insertion JDBC |

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| Database Local Insertion | |
| Geolocation to find address | |
| Geolocation Map |

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| **Take Photos** |

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| **Shared Preferences Languages** |

**Screenshots:**

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| **Home** | **Teams** | **Team Adder** |
| **Gallery** | **Match Page** | **Match Menu** |

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| **Match Map** | **Options** | **Taking Photo** |

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| Landscape Example | Landscape Example |