BMWPHD Developer's Manual

Version 1.0

Revision History

Date	Version	Description	Author
03/23/2023	1.0	Initial work on the document	Chirayu Jain

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1. Introduction

1.1 Purpose of this Document

The purpose of this developer manual is to provide the information necessary for the developer(s) that will be maintaining the software BMWPHD in future and effectively be able to maintain the current features and develop new ones effectively.

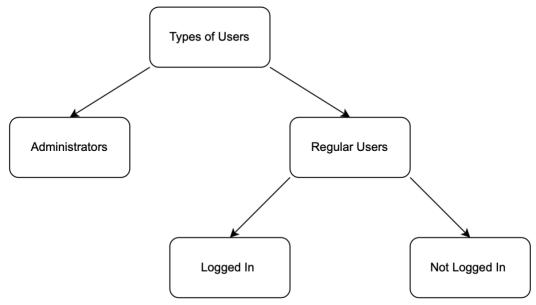
1.1 **Project Overview**

Almost all modern-day sports assessments are made using data analytics. These statistics can be run at a surface level by new fans trying to learn the sport or at a substantially deeper, more nuanced level by the pros, coaches, trainers, and team owners to ensure they are getting the best performance for their investment. This data is not limited to human athletes: the racehorse industry has a similar system to assess a horse's performance on the track that simplifies the information for first-time bettors or delves into multi-faceted performance percentages, speed scores, track surface ratings, and more for the astute bettors, breeders, owners, and trainers to try to maximize each horse's performance. Unfortunately, horse racing is the only horse sport that currently utilizes any form of advanced analytics. Reining, a western horse sport similar to figure skating, is scored based on a system that assigns points for every maneuver performed to determine the winner. These maneuver scores are publicly available but not aggregated into any sort of system useful for data analytics. This creates issues for fans to track their favorite horses and for investors to find and rank horses for purposes of breeding, buying, and determining show schedules. Unlike the current state, our project will provide one stop data about horses based on different sources and increase general interest for the public by giving them concrete and enhanced ways to track their favorite horses. When completed, this database would be useful to over 15,000 members of the NRHA (National Reining Horse Association) and to a quickly growing fan base thanks to new industry events and sponsors. It could then be expanded to other similar maneuver score-based horse sports such as reined cowhorse, cutting, ranch riding, and dressage.

2. Deployment

2.1 **Project Architecture**

There will be different types of users for BMWPHD, and the visibility for the users will differ depending on the category the specific person falls in. Below, can be seen how users are divided in the system. However, the differences on the screen visibility and permissions will be based on whether the user is an administrator or a regular user that is logged in or not logged in.



The navigation bar will have the following options for regular users:

- Home
- Search
- About Us
- Login/Logout

The navigation bar will have the following options for the administrators:

- Home
- Search
- About Us
- Login/Logout
- Manage Requests
- Manage Users

The only difference between regular users that are logged in and not logged in is that users that are logged in have the ability to flag a horse for review, whereas regular users who are not logged in do not have the ability to flag a horse for review.

2.2

loud Deployment and Version Control

The code for the front-end has been maintained on the github repository:

https://github.com/Pikago-hub/BMWPHD-FE.git

The code for the back-end has been maintained on the github repository:

https://github.com/chirayu2001/BMWPHD-BE.git

The front-end has been deployed to heroku account (credentials given to admin - Miss Brooke Wharton) with username: dev@bmwphd.net

The front-end deployment is tied to the frontend github repository and is automatically updated and built with push.

The back-end has been deployed to heroku account (credentials given to admin - Miss Brooke Wharton) with username: <u>dev@bmwphd.net</u>

The pushes to backend heroku application have been through heroku CLI.

The backend heroku application also has the database Postgres attached to it. It can be configured by configuring add ons:

HEROKU	Jump to Favorites, Apps, Pij	elines, Spaces	
Personal 0 > is bmwphd-be		📩 🛛 Open app	e 🗘
Overview Resources Deploy Metrics Activity	Access Settings		
Get a complete visualization of your app in a team-based	continuous delivery environn	ent with 🖱 Heroku Pipelines. Hide Create a Heroku Pipelin	e
Installed add-ons (\$9.00/month)	Configure Add-ons 🕥	Latest activity All Acti	eity. 🕑
Heroku Postgres 🖉 Basic postgresql-animate-19625		chirayu.jain@tcu.edu: Deployed ad5b596a Mar 25 at 2:43 PM - v173	
Dyno formation (\$0.00/month)	Configure Dynos 👁	A Chirayu jain@tcu.edu: Build succeeded Mar 25 at 2:43 PM • View build log	
This app is using eco dynos		Chirayu.jain@tcu.edu: Deployed d5c55102 Mar 10 at 11:11 AM - v172	
web java -Dserver.port=\$PORT \$JAVA_OPTS -jar target/BM	W-PHD-0 ON	M9 10 01111 MM 4112	
Collaborator activity	Manage Access ()	A Contrayu jain@tcu.edu: Build succeeded Mar 10 at 11:11 AM - <u>View build log</u>	
Conadorator activity	(+) 111 deploys	Chirayujain@tcu.edu: Deployed 9fcc68be Mar 2 at 11:14 PM · v171	
💿 dev@bmwphd.net	3 deploys	chirayu_jain@tcu.edu: Build succeeded Mar 2 at 11:14 PM - View build log	

The plan and capacity of the database can be configured under the menu and the dynos can be changed and upgraded in the menu shown below:

O Personal ≎ >		☆ Open app More ≎
Overview Resources Deploy Me	etrics Activity Access Settings	
Eco Dynos Change Dyno Type		
<pre>web java -Dserver.port=\$PORT \$JAVA_OPTS -jar target/BMW-PHD-0.0.1-SNAPSHOT.jar</pre>		
		Included in Eco subscription ()
Add-ons		Find more add-ons
Q Quickly add add-ons from Elements		
Heroku Postgres 🗗	Attached as DATABASE 🗘	Basic \$9.00 🗘
Estimated Monthly Cost		Create Dataclip O Upgrade instructions Capture backup
		/ Modify Plan
		View in Elements MarketplaceView in Dev Center
		× Delete Add-on

The credentials for the database, reset and destroy actions are available in the Settings menu in the database add-on as shown below:

Salesforce Platform	
H DATA	 🗵
Separatores > P postgresql-animate-19625	
SERVICE heroku-postgresql PLAN basic BILLING APP . briwphd-be	
Overview Durability Settings Dataclips	
ADMINISTRATION	
Database Credentials	
Get credentials for manual connections to this database.	View Credentials
Reset Database	
Reset the database to its originally-provisioned state, deleting all data inside it.	Reset Database
Destroy Database	
Destroys the database and all of the data inside it.	Destroy Database

The backend application also has config vars which contain the private and public key for the JWT token encoding and decoding for authentication.