**Southern Phone Company PHP Developer Candidate Test**



Overview

Thank you for applying for the role of PHP Developer with Southern Phone, Company!

This practical test is designed to assess your knowledge and experience of the technologies commonly used here at Southern Phone.

**Once you have completed the task, email all of your files to** ​[**devops@southernphone.net.au**](mailto:devops@southernphone.net.au)​**in a .zip or .tar.gz file**

Requirements

* Your PHP scripts must be executable with PHP v7.2 (or later)
* Your SQL queries must be written for MariaDB v10.3 (or later)

Notes

* You will need to access the SWAPI public API, located at ​**https://swapi.co/**​.
* Your HTML code should pass HTML validation checks.
* Your PHP code should not allow any unhandled errors or warnings.
* Your PHP code should be commented to ensure a junior developer understands ​***what****​*you have written, and ​***why****​*.
* Your PHP code should write detailed logs to a log file named ‘FirstnameLastname.log'
  + Example: ​**JohnSmith.log**
  + Logs should show what data is being processed, and what occurs during the processing of your request (example; full requests and responses).
* All tables you create should have the name format as: 'FirstnameLastname\_Tablename. For

Example: '​**JohnSmith\_People**​'.

Tasks

1. Create a .html file (named '<FirstnameLastname>.html').

Ensure all files you create in the following tasks are linked from this file. *Example: JohnSmith.html*

1. Create a PHP script named characters\_jedi.php which lists all character names in the film 'Return Of The Jedi'.
2. Create a PHP file named ​**mammal\_homeworlds.php**​that lists all characters that are 'mammals' (species) in all Star Wars films, and the name of their homeworld.
3. Create a database table of all ‘characters’ in all Star Wars films.

Your database should be named ‘<FirstnameLastname>\_Characters’.

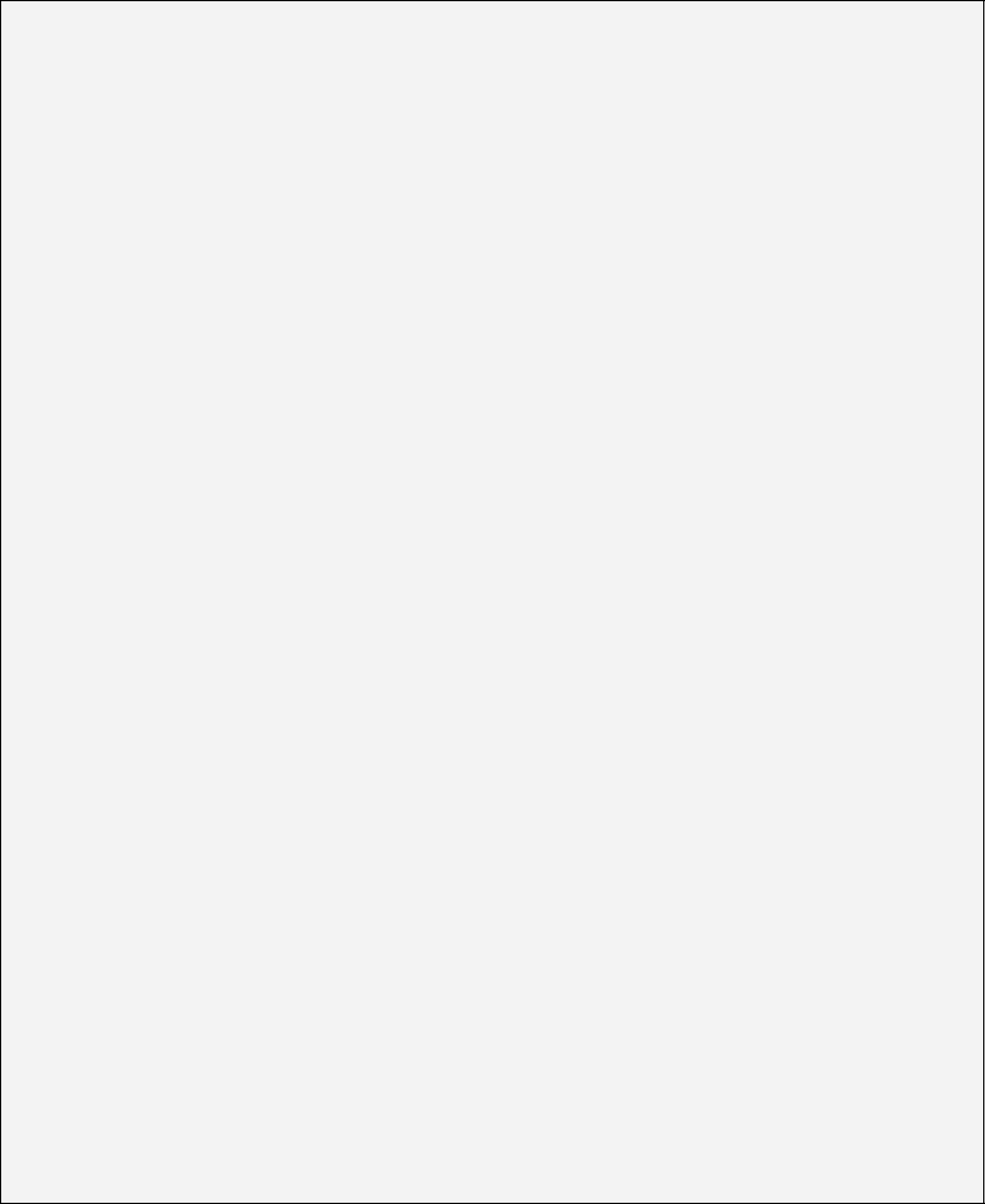
This table should contain the following required fields (you will decide the data types for the fields):

* + name
  + height
  + mass
  + hair\_color
  + skin\_color
  + eye\_color
  + birth\_year
  + gender
  + created
  + homeworld\_name (name of their homeworld)
  + species\_name

1. Create a PHP file (named ​**import\_characters.php**​) to populate the database table you have created in Step 4, with all characters available in the API. This code needs to call the remote API directly.

1. Create new database table by executing the sql script ‘CharacterUpdates.sql’ (see below).
2. Create a PHP file named ​**update\_characters.php**​, which updates the data in your database table (which you created in Task 4) with the data provided in table 'CharacterUpdates', which was created in Step 6.
3. List the name of all vehicles that can have more than 15 characters, and for each matching vehicle, provide the name of the film they appear in.
4. Create a method which can be used to add characters to your characters table.
5. For this method, create a web form which allows users to create characters. This form should have Javascript validation before submitting the form, and display any validation / error messages to the user.

SQL Script For Step 6



CREATE TABLE `CharacterUpdates` (

`id` MediumInt( 9 ) AUTO\_INCREMENT NOT NULL, `name` VarChar( 191 ) NOT NULL, `height` Smallint( 6 ) NOT NULL,

`mass` VarChar( 100 ) NOT NULL,

`hair\_color` VarChar( 191 ) NOT NULL,

`skin\_color` VarChar( 191 ) NOT NULL,

`eye\_color` VarChar( 191 ) NOT NULL,

`birth\_year` VarChar( 191 ) NOT NULL,

`gender` VarChar( 191 ) NOT NULL,

`created` Timestamp NOT NULL ON UPDATE CURRENT\_TIMESTAMP DEFAULT CURRENT\_TIMESTAMP, `homeworld\_name` VarChar( 100 ) NOT NULL, `species\_name` VarChar( 100 ) NOT NULL,

PRIMARY KEY ( `id` ),

CONSTRAINT `name` UNIQUE( `name` )

);

INSERT INTO

`CharacterUpdates`(`id`,`name`,`height`,`mass`,`hair\_color`,`skin\_color`,`eye\_color`,`b irth\_year`,`gender`,`created`,`homeworld\_name`,`species\_name`) VALUES ( '2', 'C-3PO', '167', '75', 'n/a', 'gold', 'yellow', '112BBY', 'female', '2019-01-02 13:29:10', 'Pluto', 'Kangaroo' );

INSERT INTO

`CharacterUpdates`(`id`,`name`,`height`,`mass`,`hair\_color`,`skin\_color`,`eye\_color`,`b irth\_year`,`gender`,`created`,`homeworld\_name`,`species\_name`) VALUES ( '3', 'R2-D2', '96', '32', 'n/a', 'white, blue', 'red', '33BBY', 'female', '2019-01-02 13:29:10', 'Venus', 'Chimpanzee' );

INSERT INTO

`CharacterUpdates`(`id`,`name`,`height`,`mass`,`hair\_color`,`skin\_color`,`eye\_color`,`b irth\_year`,`gender`,`created`,`homeworld\_name`,`species\_name`) VALUES ( '13', 'Chewbacca', '228', 'testing!', 'brown', 'unknown', 'blue', '200BBY', 'male', '2019-01-02 13:29:40', 'Mars', 'Wombat' );

INSERT INTO

`CharacterUpdates`(`id`,`name`,`height`,`mass`,`hair\_color`,`skin\_color`,`eye\_color`,`b irth\_year`,`gender`,`created`,`homeworld\_name`,`species\_name`) VALUES ( '19', 'Yoda', '66', '17', 'white', 'green', 'brown', '896BBY', 'male', '2019-01-02 13:29:40', 'Saturn', 'Elephant' );