Technical Test 1: File Structure Solution (<https://youtu.be/HhRX401fYXY>)

* Design of database was chosen to be HIERARCHICAL DATA MODEL.
* HIERARCHICAL DATA MODEL was chosen because File Structure follows a hierarchy in which Parent and Child nodes are there. The Root node has no parent.

The structure of hierarchy is show below: (It was chosen as associative arrays are told to be used and they can be mapped to adjacency list easily).

C:

|----------Documents

| |------------Images

| | |--------Image1.jpg

| | |--------Image2.jpg

| | |--------Image3.jpg

| |

| |------------Works  
| |--------Letter.doc

| |--------Accountant

| |--------Accounting.xls

| |--------AnnualReport.xls

|

|----------Program Files

|------------Skype

| |--------Skype.exe

| |--------Readme.txt

|

|------------Mysql  
 |--------Mysql.exe

|--------Mysql.com

* Adjacency list was created using the associative arrays.
* Search was successful.
* Details are in video.
* Code is on Github:

<https://github.com/greatdevaks/NetPay-TechnicalTasks/blob/master/task1.php>

https://github.com/greatdevaks/NetPay-TechnicalTasks/blob/master/search.php

(Note: The code for database creation and table creation is commented in search.php).

Technical Test 2: Payroll and Expense Date Solution (https://youtu.be/UqAI9mFyxyQ)

* Object Oriented Code has been written for this task.

<https://github.com/greatdevaks/NetPay-TechnicalTasks/blob/master/task2.php>

(Class) <https://github.com/greatdevaks/NetPay-TechnicalTasks/blob/master/PayrollExpense.php>

* PayrollExpense Class was created with “year” as a private data member that gets set through constructor.
* $payroll and $expense are the arrays that are also private.
* There are two public functions for calculating Payroll and Expense.
* Logic has been applied as per guidelines.
* The functions return the result array.
* These arrays are accessed in result screen and shown as desired.
* Explanation is in video.

Technical Test 3: JavaScript and CSS Solution (<https://youtu.be/aGucnRk2V9E>)

* The Programmatic Example of Dojo Tooltip was implemented in native JavaScript and CSS.
* Tooltip Class was made.
* Creation of a new object requires three parameters to be passed to constructor of Tooltip class (parent\_id, new\_id, tooltip\_value); where parent\_id is the id of element to which tooltip is to be applied, new\_id is the id of new “span” element that would be created to hold tooltip, tooltip\_value is the value of tooltip.
* Example is shown in video.
* Code is on:

<https://github.com/greatdevaks/NetPay-TechnicalTasks/blob/master/task3.html>

(JS) <https://github.com/greatdevaks/NetPay-TechnicalTasks/tree/master/js>

(CSS) <https://github.com/greatdevaks/NetPay-TechnicalTasks/blob/master/css/task3_css.css>

Link to Videos:

Task 1: <https://youtu.be/HhRX401fYXY>

Task 2: https://youtu.be/UqAI9mFyxyQ

Task 3: <https://youtu.be/aGucnRk2V9E>

Comments: It was a real fun to do these activities. Looking forward to hearing back from you.