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# BASIC PHP FOUNDATION COURSE

| **MAIN TOPIC** | **SUB TOPIC** | **DETAILS**  **/**  **(LINKS FOR FURTHER STUDY)**  **/**  **(FEEDBACK)**  **/**  **(SAMPLE PROGRAMS)** | **(CLASSROOM EXERCISES)**  **/**  **(ASSIGNMENTS)** | **TRACKING INFORMATION** |
| --- | --- | --- | --- | --- |
| **OVERALL CONTEXT** | WHAT ARE YOU EXPECTING ? | <Update after feedback from the students> | **N/A** | DAY 1  (<=15 mins) |
|  | MY EXPECTATIONS FROM THE STUDENTS/YOU | * Be aware of the course content (*Have all of you gone through the course details [separate doc] ?)* * Do the class room exercises * Complete your assignments * Make notes *(I do it and it helps me)* * Don’t just nod your head to what I say. Digest it slowly. Stop me if I am going too fast | **N/A** | DAY 1  (<= 15 mins) |
|  | GOALS AS A TRAINER | * Teach the basics of PHP in an informal and interactive way * Ensure that the course content is covered within the given time frame * Get you motivated to start programming * Get you curious about the language. Python is real fun to program with !. * Ensure that you are generally attentive during the course * Get positive feedback at the end of the course | **N/A** | DAY 1  (<= 15 mins) |
|  | PROPOSED TEACHING STYLE | * Interactive / personalized style with lots of visuals   i.e. why I use a WORD document instead of a PPT   * Avoid the use of lengthy paragraphs * Avoid spending too much time talking on a specific topic * Switching contexts too often – Strict NO NO * Get all of you to write lots of programs * Will try to use images, because our brain understands visuals more easily than text | **N/A** | DAY 1  (<= 15 mins) |
|  | ABOUT THE TRAINER I.E MYSELF |  | **N/A** | DAY 1  (<= 15 mins) |
|  | NEXT STEPS | We will revisit this topic at the end of the course | **N/A** | DAY 1  (<= 15 mins) |
|  | ANY OTHER POINTS ? | * <Update after feedback from the students> | **N/A** | DAY 1  (<= 15 mins) |
| **PYTHON ECOSYSTEM** | PHP INSTALLATION related information | * For the course, we will be using PHP * Download link * Find out if there are any * Mac users * Linux users |  | DAY 1  (<= 30 mins) |
|  | Environment variables that need to be set | * Windows |  | DAY 1  (<= 10 mins) |
|  | Installing/Using third party editors |  |  | DAY 1  (<= 30 mins) |
|  | Configuring Apache with PHP |  |  |  |
|  | Brief history of PHP |  |  | DAY 1  (<= 15 mins) |
|  | PHP’s rich standard library |  |  | DAY 1  (<= 30 mins) |
|  | Third party modules | Python has a rich collection of third party modules that developers can use in their applications.  A few well known PHP modules :-   * Web Development |  | DAY 1  (<= 30 mins) |
|  | The Python Interpreter |  |  | DAY 1  (<= 10 mins) |
|  | Python’s interactive shell |  |  | DAY 1  (<= 10 mins) |
|  | What are people using Py for ? |  |  | **DAY 1**  **(<= 10 mins)** |
|  | ANY OTHER POINTS ? |  |  | **DAY 1**  **(<= 10 mins)** |
|  | Learning to use interactive environments |  |  | **DAY 2**  **(<=1 hr)** |
|  | ?????? |  |  | **DAY 2**  **(<=30 mins)** |
|  | ??????? |  |  | **DAY 2** |
| **PHP BASIC PROGRAMMING** | What do you think a PHP program contains ? |  |  | **DAY 2**  **(<= 30 mins)** |
|  | In general, what do you think programs should do ? | * Handle data * Process input to generate output * Over the years, languages have evolved to manage complex data * A programming language must have data structures to be able to efficiently process information |  | **DAY 2**  **(<= 30 mins)** |
|  |  |  |  |  |
|  | Some basic code samples |  |  | **DAY 2**  **(<= 30 mins)** |
|  | Declaring variables |  |  | **DAY 2**  **(<= 1 hr)** |
|  | More on declaring String variables |  |  | **DAY 2**  **(<= 30 mins)** |
|  | Can you think of any other variables that you would like to declare in your programs ? |  |  | **DAY 2** |
|  | CLASS ROOM EXERCISES |  |  | **DAY 2** |
|  | ANY OTHER POINTS ? | <Update after feedback from students> |  | **DAY 2** |
|  | **EVERYTHING IS AN OBJECT** |  |  | **DAY 2** |
| **THE NEXT LEVEL OF PHP PROGRAMS** | In your opinion what can we cover next ? | <update after feedback from students> |  | **DAY 2** |
|  |  |  |  | **DAY 2** |
|  | If |  |  | **DAY2** |
|  | If else |  |  | **DAY 2** |
|  | Switch statement ? |  |  |  |
|  | If elif |  |  | **DAY 2** |
|  | WHILE loops |  |  | **DAY 2** |
|  | FOR Loops |  |  | **DAY 2** |
|  |  |  | *Note – Students will be given assignments to explore this function* |  |
|  | CLASSROOM EXERCISES |  |  |  |
|  | ANY OTHER POINTS TO DISCUSS |  |  |  |
|  |  |  |  |  |
| **DATA STRUCTURES** | Scratching the surface |  |  |  |
|  | Arrays |  |  |  |
|  | Tuples |  |  |  |
|  | Lists |  |  |  |
|  | Dictionaries |  |  |  |
|  | Sets |  |  |  |
|  | Collections in 3.7 |  |  |  |
|  | CSV files into data structures |  |  |  |
|  | CLASSROOM EXERCISES |  |  |  |
|  | Any other points to discuss ? |  |  |  |
| * **D.R.Y.** * **MODULARITY** * **WRITING BETTER CODE** | Using DocString for documentation |  |  |  |
|  | Functions in Python |  |  |  |
|  | Documenting your functions |  |  |  |
|  | Lambda Functions |  |  |  |
|  | Exception handling |  |  |  |
|  | Coding standards |  |  |  |
|  | Static code Analysis |  |  |  |
|  | Modules and Packages |  |  |  |
|  | A quick visit back to the house of the “Standard Library” |  |  |  |
| **OOPS IN PHP** |  |  |  |  |
| **DATA STRUCTURES** | Diving below the surface |  |  |  |
|  |  |  |  |  |
| **???????** |  |  |  |  |
|  |  |  |  |  |
| **CONCLUDING THE COURSE** | What went well ? |  |  |  |
|  | So – so ..ummm |  |  |  |
|  | Really bad |  |  |  |
|  | Next steps |  |  |  |

# INTERMEDIATE PHP TOPICS

| **MAIN TOPIC** | **SUB TOPIC** | **DETAILS**  **/**  **(LINKS FOR FURTHER STUDY)**  **/**  **(FEEDBACK)**  **/**  **(SAMPLE PROGRAMS)** | **(CLASSROOM EXERCISES)**  **/**  **(ASSIGNMENTS)** | **TRACKING INFORMATION** |
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# ADVANCED PHP TOPICS

| **MAIN TOPIC** | **SUB TOPIC** | **DETAILS**  **/**  **(LINKS FOR FURTHER STUDY)**  **/**  **(FEEDBACK)**  **/**  **(SAMPLE PROGRAMS)** | **(CLASSROOM EXERCISES)**  **/**  **(ASSIGNMENTS)** | **TRACKING INFORMATION** |
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