```php
<?php
    /*  This is multiline comment, just like in a C program
        Comments are ignored by compiler or interpreter
        And may help programmers understand the code better

        Linux, shortcut keys to open terminal
            Press all keyboard keys together, ctrl alt t

        (Unlike taskbar in Windows,
            visible as horizontal bar at the bottom)
        Docker, Launcher, on Ubuntu, available on left side
            as vertical column

        User opened applications like terminal, gedit, firefox
            will be visible on Dock, Launcher
    */
?>


<?php
    /*  By default, gedit saves files in directory /home/username

        When writing a program, first job save code
            with file name followed by . and file extension
        For PHP programs, save code with file extension of .php
        Where: /var/www/html/
            First "/" is also called as "root" folder
            Code would be saved in: /var/www/html/code.php
    */
?>


<?php
    /*  How:
        If writing code in gedit, "save as" option under ≡
            ≡ → save as → bottom left has "other location"
            Other location → Computer (or /) → var → www → html
        Or
        Files (File browser)
            Right click on code.php
            use cut, click on Cut
            and
            paste, right click and Paste into
                after file browsing to folder /var/www/html
        Or
        If comfortable with terminal and commands
            use mv, move command, $mv source destination
                $mv code.php /var/www/html/
            or use cp, copy command, $cp source destination
                $cp code.php /var/www/html/

        If code.php does not have errors, and Apache httpd
            daemon is running, and php is installed
            code.php can be accessed through Mozilla Firefox
            Firefox(Web browser)
                in "address bar", type URL
                    http://localhost/code.php
                    or
                    http://127.0.0.1/code.php
                        and enter ↵ or click →
    */
?>
```

```php
<?php
    /*
        If code.php has errors, check error description on terminal
            $php code.php
                read, understand, and correct error and retry

        make sure code.php is saved in current/working directory
        and
        current/working directory is /var/www/html/

        To check current/working directory, on terminal
            $pwd

        To check files in current directory, on terminal
            $ls
        ls, list directory contents, code.php should be listed

        To change directory,
            Using Files (File browser)
                Browse to /var/www/html
                Right click in displayed folder area
                    other than on file/folder

                    Open in terminal
            or
            Using terminal, and command,
                cd, Change the shell working directory
                    $cd /var/www/html
    */
?>

<?php
    /*
        Suggestions, common errors

        Consider you are writing C, or JavaScript
            End statements, expressions with semicolon ;

        Important changes in PHP:
            Variable name begin with dollar symbol $
            and are dynamically typed, type decided on context

        Indentation
            Though not a part of syntax like Python
                But please use indentation, like you would in py

                Can be by use of tab key of keyboard
                or
                Four spaces, by use of spacebar key of keyboard

        Not a part of syntax, but
            please do not code entire program beginning on
                same column
            entire code should not begin on same column
    */
?>
```

```php
<?php
    /*  Same programs need not be followed
        If you feel programs are lengthy and complicated
        and can write better, please do
            as long as programs satisfy problem definitions

        PHP Programming, problem definitions, please refer syllabus
            https://vtu.ac.in/pdf/2022_3to8/2aimlsyll.pdf
    */
?>

<?php
    /*  1 a.
        Develop a PHP program to calculate areas of Triangle and
         Rectangle.
    */
                        // variable names begin with $
    $base = 4;          // considering same base and height for both
    $height = 3;        // triangle and rectangle
                        // statements, expressions end in ;
    $area_of_tri = (1/2) * $base * $height; // why is area of triangle
    $area_of_rect = $base * $height;         // half of rectangle
                                  // why is area of rectangle base * height
    // echo, function to print text, and value of variable
    // <br/> element of html, display text on a new line on web browser
    echo "<br/> For base = $base, and height = $height";
    echo "<br/> Area of triangle = $area_of_tri";
    echo "<br/> Area of rectangle = $area_of_rect";

    // Please observe change of color for variable names, functions
    //  provided program is being written in gedit, or
    //  IDE that recognises PHP, like geany

    // Output of php code will be markup of html intended for web browser
?>

<?php
    /*  Save program as
            1a_area.php
        in
            /var/www/html

        And access on Mozilla Firefox web browser
            through URL in address bar as

            http://localhost/1a_area.php

        Will work, if no syntax errors in PHP code
    */
    /*
        To check errors, on terminal,
            but being in same working directory as program
                $php 1a_area.php

        Can use tab key of keyboard to auto complete
            $php                    $php 1a
                and click tab, auto completes if unique name
            $php 1a_area.php
                and enter ↵
                to check errors if any, or output on terminal
    */
?>
<!-- This is comment in HTML, will not be displayed on web browser
        but is present in html markup, Right click, View Page Source
```