**DAILY ASSESSMENT FORMAT**

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| **Date:** | **26-05-2020** | **Name:** | **Bhavith** |
| **Course:** | **DSP** | **USN:** | **4AL17EC009** |
| **Topic:** | **Fourier Transforms,ECG Signal Analysis** | **Semester & Section:** | **6th,A** |
| **Github Repository:** | **Bhavith-Online-Courses** |  |  |

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| **FORENOON SESSION DETAILS** |
| **Image of session**  **PSX_20200526_205910** |
| **Report – Report can be typed or hand written for up to two pages.**  **Fourier Transforms:**   * **Fourier transform (FT) is a [mathematical transform](https://en.wikipedia.org/wiki/Integral_transform" \o "Integral transform) which decomposes a [function](https://en.wikipedia.org/wiki/Function_(mathematics)" \o "Function (mathematics)) into its constituent [frequencies](https://en.wikipedia.org/wiki/Frequency" \o "Frequency), such as the expression of a musical [chord](https://en.wikipedia.org/wiki/Chord_(music)" \o "Chord (music)) in terms of the volumes and frequencies of its constituent notes.** * **The term *Fourier transform* refers to both the [frequency domain](https://en.wikipedia.org/wiki/Frequency_domain" \o "Frequency domain) representation and the [mathematical operation](https://en.wikipedia.org/wiki/Operation_(mathematics)" \o "Operation (mathematics)) that associates the frequency domain representation to a function of time.** * **The Fourier transform of a function of time is a [complex-valued function](https://en.wikipedia.org/wiki/Complex-valued_function" \o "Complex-valued function) of frequency, whose magnitude ([absolute value](https://en.wikipedia.org/wiki/Absolute_value" \l "Complex_numbers" \o "Absolute value)) represents the amount of that frequency present in the original function, and whose [argument](https://en.wikipedia.org/wiki/Argument_(complex_analysis)" \o "Argument (complex analysis)) is the [phase offset](https://en.wikipedia.org/wiki/Phase_offset" \o "Phase offset) of the basic [sinusoid](https://en.wikipedia.org/wiki/Sine_wave" \o "Sine wave) in that frequency.** * **The Fourier transform is not limited to functions of time, but the [domain](https://en.wikipedia.org/wiki/Domain_of_a_function" \o "Domain of a function) of the original function is commonly referred to as the *[time domain](https://en.wikipedia.org/wiki/Time_domain" \o "Time domain)*.** * **There is also an *inverse Fourier transform* that mathematically synthesizes the original function from its frequency domain representation, as proven by the [Fourier inversion theorem](https://en.wikipedia.org/wiki/Fourier_inversion_theorem" \o "Fourier inversion theorem).**   **ECG Analysis:**   * **Since ECG signals are very noisy, usually 50Hz noise,** * **MATLAB was used to test and adjust a digital filter ,** * **in order to obtain a good QRS complex,** * **which represents the ventricular depolarization in the ECG,** * **i.e., it shows the electrical impulse of heart as it passes through the ventricles.** |

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| **Date:** | **26-05-2020** | **Name:** | **Bhavith** | |
| **Course:** | **Python** | **USN:** | **4AL17EC009** | |
| **Topic:** | **Create personal Website,Graphical User Interfaces with Tkinter** | **Semester & Section:** |  | |
| **AFTERNOON SESSION DETAILS** | | | |
| **Image of session**  **PSX_20200526_205945** | | | |
| **Report – Report can be typed or hand written for up to two pages.**  **Create Personal Website using Python:**   * **Python developers are familiar with a number of web frameworks that can be used to build websites.** * **Django, Grok, WebPy, TurboGears, WebApp2, Pyramid, and Flask are some of the most widely used Python frameworks that can help you build a website from the scratch.** * **Few popular websites that are developed using python,** * **YouTube.** * **DropBox.** * **Survey Monkey.** * **Google.** * **Quora.** * **Bitly.** * **Reddit.** * **Yahoo Maps.**   **Graphical User Interfaces with Tkinter:**   * **Most of you write a code and run it in a command-line terminal or an IDE (Integrated Development Environment), and the code produces an output based on what you expect out of it either on the terminal or on the IDE itself.** * **However, what if you want your system to have a fancy looking user-interface or maybe your application (use-case) requires you to have a GUI.** * **GUI is nothing but a desktop app that provides you with an interface that helps you to interact with the computers and enriches your experience of giving a command (command-line input) to your code.** * **They are used to perform different tasks in desktops, laptops, and other electronic devices, etc.** | | | |