SOCKET PROGRAMMING PROJECT:ABSTRACT

TITLE OF THE PROJECT: TIME SERVER

TEAM MEMBERS:

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DESCRIPTION OF THE PROJECT:

USING THIS PROJECT WE CAN CALCULATE THE TIME OF ANY PARTICULAR TIME ZONE WHICH HAS BEEN SELECTED BY THE CLIENT FOR IT'S DAILY ROUTINE FROM THE VARIOUS TIME ZONES OF CITIES AND AREAS PROVIDED BY THE NTP LIBRARY OF PYTHON.FOR THIS WE HAVE USED THE NTP SERVER IN ORDER TO CALCULATE THE TIME.

ANOTHER SERVICE PROVIDED BY SERVER IS,TIME SYNCHRONIZATION WHICH IS USED TO TAKE OUT THE DIFFERENCE OF THE TIME BETWEEN THE 2 TIME ZONES PROVIDED BY THE CLIENT.FOR THIS WE HAVE USED THE DATETIME PYTHON MODULE IN ORDER TO CALCULATE THE TIME OF TIMEZONES AND ALSO THEIR DIFFERENCE.ALSO WE USE THE STRPTIME ,STRFTIME FUNCTIONS INORDER TO PARSE THE DATETIME OBJECT AND GET A STRING FORMAT AND TO GET A DATETIME STRING OBJECT RESPECTIVELY.

MODULES USED IN THE PROJECT:

1.NTPLIB : USED FOR REQUESTING TIME FROM THE ACTUAL NTP TIME SERVER AND TO PERFORM THE GIVEN OPERATIONS

2PYTZ:THE MODULE IS USED FOR TAKING THE TIME ACCORDING TO DIFFERENT TIME ZONES

3.DATETIME:THE MODULE IS USED TO EXTRACT THE TIME FROM THE NTP SERVER IN THE DATE AND TIME OBJECT FORMAT AND PERFORM OPERATIONS USING THE THE FUNCTIONS LIKE THE STRPTIME,STRFTIME AND FROMTIMESTAMP WHICH HELPS TO ACHIEVE THE RESULTS

TRANSPORT LAYER PRTOCOL USED:

FOR OUR PROJECT WE HAVE USED THE **TCP PROTOCOL** FOR CONNECTION AS IT GIVES ADVANTAGES OVER OTHER PROTOCOLS LIKE RELIABLE DATA TRANSFER WHICH IS A SIGNIFICANT ASPECT FOR THE SMOOTH FUNCTIONING OF THE SERVER AND THE CLIENT IN PERFORMING TIME RELATED OPERATIONS