FUN WITH CALENDAR: 07

Alright guys so in the previous videos you had seen the different functionalities being provided by the libraries there are pre requisites then you saw the procedure by which we can calculate we can find the day of the week given a date so as i had said if we get an input from an user we need to be careful with something extra facts like there may be a typo or may be thing that is out of range basically that's not an invalid thing may be enter you need to take care of all those things we had seen we had seen an algorithm as well sort of an algorithm the procedure we had seen so will go ahead and start coding will gets our hands dirty with coding so let's start. So the first thing is something that is easier is you need to get year as you have seen in the documentation in our pre requisites videos python supports from the year nineteen seventy so user enters year before that so let's get started with the coding let's get started with the coding. Python supports from the year nineteen seventy right so the user enters the year before that you should say that please enter something from nineteen seventy some message like that and ask him to enter it so we will do that part first we need to get the input of that year so let me say year year is nothing but i need to get an input, input generally it would be in a string format that's how python works so we need to type cast it to integer input i will have to say enter the year let me say nineteen seventy to the current year two thousand eighteen enter any year let me say that i will have to check he has entered something like this only if he has enter some other year before nineteen seventy that is something less than nineteen seventy he has entered we would say it is an invalid year so i will have a check here if year is less than nineteen seventy i should say print let me say have to say enter a year in the range nineteen seventy to the current year two thousand eighteen so i have to save this and again he have to give an input right so again i need to take it and this must keep going till he enters an valid year so i need to put this in a loop let me put while one i need this has to be continuously done but while one is continuous loop there is no wareness nothing but indication for true so as long it is true i am just giving the condition as true so it will pass the loop and it will keep running so when should i stop in case he has given so while one is nothing but an infinite loop as you could see that is it will keep asking for inputs and keep checking if it is an invalid input yes its fine you go ahead and asks for input again if it is valid input again you ask for input is it something fair right no right we should not do that so in that case we have to break we have to come out of the loop we have to quit. So that's called break else that means the year is something from nineteen seventy that is nineteen seventy or above the value is something like that then you near out of the loop is what i mean. I hope you are understanding this part you get an input check if it is before year nineteen seventy in that case you ask him ask the user to enter again if not come out of the loop you do it inside an infinite loop and once then user enters an valid year to break to come out of the loop that's how the working is. So this is for year and another thing is month a similar pattern will follow for month as well so let me just copy paste this block and i will do the modifications there, let me copy let me paste so here this is month, month enter month, month will take the value from one to twelve one to twelve right January is the first month and December is the twelth month it takes the value and now the checking ahs to be month is less than twelve and what if someone enters minus three is it a valid month? No right it has to be a positive value so you have to check for the positive value as well and month is greater than zero greater than zero is

positive and it should be its not less than twelve its less than equal to because the twelth month exit right so it should be less than equal to twelve. If that is the case it's the valid input so i will remove this i will change it so if the month is within twelve it is a positive value and if it is within twelve then it's a valid input so i break out of the loop else i will have to say print what shall i say enter a valid month from one to twelve so let me say that i will say enter a valid month from one to twelve. So that is how i got an input from month so i hope you are understanding this snippet its basically you are inputting month checking if it is within the bounce that is it should be a positive value or maximum allowed value is twelve, if it is within the bounce just say ok you are done getting the input otherwise you say that it is the invalid month you have to enter some valid value this is the range of the value and you continue asking for inputs so that why we are using an infinite loop. Once the input is a valid input you break out of the loop right, so this is how you have to get the input for month year month as well as date. For checking date you should check if it is a leap year or not also you should based on that you have to check what is the month that is being inputted and how many dates how many days are allowed in that month. So you should check that and you should get the input right, so for that first thing we have to do is we have to check for leap year. So let us define a function for it, leap let me say leap is nothing but check for leap year check for leap year. What is the input? The given year so i have to check for leap year then same like this i have to have to get the input for date basically so i have to get date let me say date enter the date and for date we don't have a fixed range something like that so let me remove this part but still you should check if it is a valid date or not so let me say i will use a function here as well i will use a function check valid date so what are the factors that determines if it is a valid date or not? The entered value of date then the month the entered value of date the month and the year and the factor that it is a leap year or not. All these factors determine if it is a valid date or not, so based on that determine if it is a valid date if it is a valid date you break that is you done taking the inputs otherwise you have to say that you have to enter a valid date. Enter a valid date this has to be the message that has to be printed. I hope you are understanding the flow so let me just give you a very quick summary if what we have done till now. The first thing is we are taking year as an input python supports from nineteen seventy so if someone enters an year before that we will have to say that enter an year in this range will have to say that from nineteen seventy to two thousand eighteen the current year enter some year or maybe even if he enters some other ear its fine but ok let me say let me modify this message as well because you can enter anything after that. So let me say from nineteen seventy that's a very nice message from nineteen seventy two is not because currently it is two thousand eighteen if you do it after five years you will have to change people will ask for some other so it's all define anything before nineteen seventy is not defined from starting from nineteen seventy this is a nice message so anything before nineteen seventy is not defined after nineteen seventy that is from nineteen seventy and after that you can give any year as an input. So we are getting an input for a year then we are doing it for a month we are checking if it is within the bounce one to twelve and as well as we have to check we have to get the input for date and for getting the date and checking if it is a valid date we have various factors what is the entered date what is the month that has been entered previously what is the year that has been and if that year is a leap year or not, so first we have to check if it is a leap year then we have to use all these factors to determine if the date is a

valid date and once everything is valid you are ready to use this inputs into your built in library functions. So here as you could see these things, check leap, check valid date these are undefined functionalities. We have to define them will do that in the next part of the video.