Dey 6 3-A loop is a programming constouets that repeats a block of code until a specified condition is met. We use loop to avoid writing repetitive code, make our programs more efficient and scalable. Syntax: for loop: por (intralization; condition; inc) for (ut i20; ic3; i+4) { consode 209 (i);

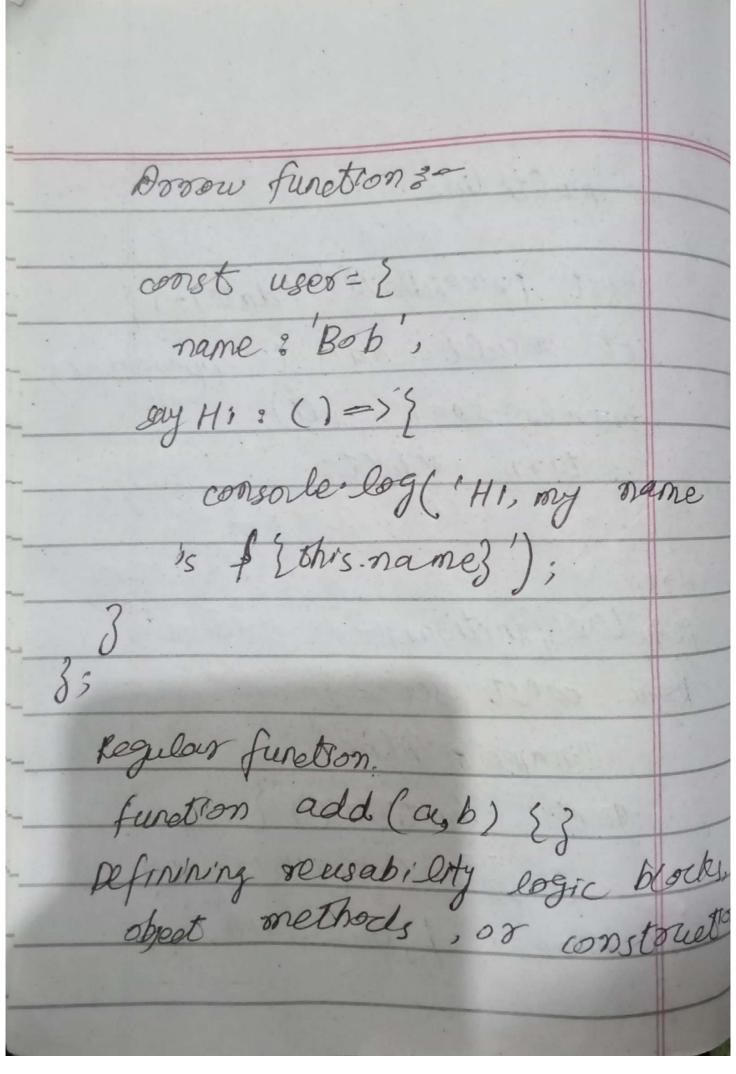
Syntax of while loop: while loops while (condition) { example 3let count = 0; while (count 23) { consorle log(count); count ++; supput to Syntax of Do-while. while (condition); example; let count = 0; console log(count) count ++; while (count 3); outfut: While is do-while 3-The main difference is when condition is elected. A dowhile loop always executes its code at least once before cheeping the condition, fost,

A while loop cheeks The condition first, so it might not own al all if condition is initially false Day 7 3-=) Define function and syntax: function is a block of reasonble code that perform a specific toste or alculates a value. Functions are fundamental building block of language.

function function Name (parameters, Para seturn value; => Function Declaration and Function expression 3-Function declaration is standalone statement. Its hoisted, meaning the javascorpt engine mares it to top of its scope before code executes. finetion sayhello () { consorled (Hello);

=) Function Expression = Function expression is past of another expression, often an assignment its not hoisted in same way. const say Goodbye = function () [consolerlog ('Good bye!); Arrow function Syntans const add = (a, b) =) att; for single line.

for multiline. const processData = (data)=) } let result = data to Uppercasely; console log (result); zeturn result; A800 Regular function 3const user = { name & Blice, greet: furetion () { consorbe loj ('Hello) my name is \$ {this named);



Arow function: const add (asb)=> {} short, concise callbacks for method like map (), filter (), or reduce (), where a simple function is needed.

