Arash Kheirollahi 146731245 akheirollahi@myseneca.ca  
week 2 activity

*Paste the*Algorithms and Pseudocode*question you've selected followed by your answer. (minimum 250 words)*

*// pseudocode for a robot to clean your dishes?*

START

*/\* -------------------------------- functions ------------------------------- \*/*

function *isThereDirtyDishes*() {

*if* (There are Dirty Dishes in Kitchen) {

*return*(true)

    }*else*{

*return*(false)

    }

}

function *backtoHome*(taskStatus) {

*set* tasks.dishes to taskStatus

*GoTo*("Charging hub")

*Set* mode to "Standby"

*while* (tasks.dishes == "Pending") {

*Set* mode to "Standby"

*if* (washing pending time == 0) {

*Set* mode to "Active"

*dishWashingMachin*()

        }*else*{

*backtoHome*("Pending")

        }

    }

*break*

}

function *dryDish*() {

*if*(dish.status == "clean" && dish.status == "wet"){

        dry dish with a piece of cloth

    }

*return*(dish)

}

function *loadDishWasher*() {

*GoTo*(sink)

*grab*(1 , "Dish")

*GoTo*(dishWasher)

*Place*("Dish" in dishWasher)

}

function *unloadDishWasher*(param) {

*GoTo*(dishWasher)

*grab*(1 , "Dish")

*GoTo*(cabinet)

*if*(cabinet is full){

*GoTo*(dishWasher)

*Place*("Dish" in dishWasher)

*Print*("error: not enough room to put clean dishes")

*backtoHome*("incomplete")

    }*else*{

*dryDish*()

*Place*("Dish" in cabinet)

    }

}

function *startDishWasher*() {

*if* (dirtyDishesQty == 0 || dishWasher.emptySlotCount) {

*close*(dishWasher.door)

*set* dishWasher.controlPanel to start

*backtoHome*("Pending")

    }

}

function *dishWashingSink*() {

*GoTo*("sink")

*open*("faucet")

*pickUp*("Dirty Dish")

*holdDishUnderWater*()

*scrub*("dish" , 20 sec) *//scrub dish for 20 seconds*

*if* (dish is Clean) {

       place dish in cabinet

*if*(any dirty dish left) {

*dishWashingSink*()

       }

    }*else*{

        scrub again

    }

}

function *dishWashingMachin*() {

*GoTo*(dishWasher)

*open*(dishWasher.door)

*if* (dishWasher is empty) {

*loadDishWasher*()

*startDishWasher*()

    }*else*{

*// dishWasher is not empty*

*if* (dishWasher.dishes.status != "Clean") {

*while* (dishWasher.inventoryCount != dishWasher.capacity) {

*loadDishWasher*()

            }

*startDishWasher*()

        }*else*{

*while* (dishWasher.inventoryCount != 0) {

*unloadDishWasher*()

            }

        }

    }

}

*/\* -------------------------------- sequences ------------------------------- \*/*

*// Robot enters standby mode*

*Set* mode to "Standby"

*WHILE* true *DO*

*IF* command == "Wash the dishes" THEN

*Print* "Starting dishwashing sequence"

*GoTo*("Kitchen")

*if* (*isThereDirtyDishes*() == true) {

*// found dirty dishes*

*if* (washingFacilities != null) {

*if*(dishWasher != null){

*// wash the dishes by dish washer*

*dishWashingMachin*()

                }*else*{

*// wash the dishes in sink*

*dishWashingSink*()

                }

            }*else*{

*Print*("error: no washing facility found")

*backtoHome*("incomplete")

            }

*backtoHome*("Done")

        }*else*{

*//abondon task and go back to hub*

*backtoHome*("Done")

        }

*ELSE*

*// Remain in standby mode*

*Print* "Awaiting command"

    ENDIF

ENDWHILE

*END*

*Paste the*ICT Past, Present, and Future*question you've selected followed by your answer. (minimum 250 words)*

*What role has front-end development played in shaping the present of ICT?*

*Front-end development plays a pivotal role in the present landscape of Information and Communication Technology (ICT) by shaping how users interact with digital systems. It bridges the gap between complex back-end systems and end-users, ensuring that technology is accessible, intuitive, and visually appealing.*

*In today’s ICT world, front-end development is at the forefront of user experience (UX) and user interface (UI) design. Technologies like HTML, CSS, and JavaScript, along with frameworks such as React, Angular, and Vue.js, enable developers to build dynamic, responsive, and interactive web applications. These tools allow businesses to cater to users across devices, ensuring seamless experiences on desktops, tablets, and smartphones. As a result, front-end development has become essential for fostering accessibility and inclusivity in the digital world.*

*Furthermore, the rise of progressive web apps (PWAs) and single-page applications (SPAs) has redefined the way users engage with online platforms, providing app-like experiences directly through browsers. This innovation is a testament to the adaptability and evolution of front-end development to meet contemporary demands.*

*Front-end development also plays a critical role in branding and marketing strategies. A visually appealing and functionally robust website or application can significantly enhance a company’s image and user retention. Tools like WebAssembly and modern APIs are now pushing the boundaries of what front-end technologies can achieve, allowing developers to bring powerful and immersive experiences to life.*

*In summary, front-end development in the present day is indispensable to ICT, shaping how users perceive and interact with technology, driving engagement, and enabling businesses to connect with their audiences effectively.*