ICT PRACTICAL WORKSHEET - STD IX

Worksheet No	3.1
Name of Chapter	Let’s Develop Software!
Name of Activity	Exploring the Alarm Clock Application
Software Used	PictoBlox (Web/Browser)
Time	40 Minutes

Order of Events

Opening the Alarm Clock App	Open the Alarm_ clock.html file from the School_Resources/Alarm_clock folder in a web browser.
Observing the Clock	Click the **green flag** to start the clock. Observe how the second, minute, and hour hands move.
Setting an Alarm	Click the **SET ALARM** button. Enter a time a few minutes from now. Wait and observe what happens when the alarm time is reached.
Recording Observations	Complete the following observations: - When the flag is clicked, the clock starts. - The time shown is the **computer’s current time**. - The alarm **triggers a sound** at the set time. - The second hand moves **6 degrees per second**.
Saving Notes	Write your observations in a text file and save it as **alarm_observation.txt**.
Finishing	Close the browser tab.

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Worksheet No	3.2
Name of Chapter	Let’s Develop Software!
Name of Activity	Building the Digital Alarm Clock Interface
Software Used	PictoBlox
Time	40 Minutes

Order of Events

Opening PictoBlox	Open PictoBlox and start a new project.
Adding Background	Delete the default sprite. Add **clock.png** from the **Alarm_clock** folder as the background.
Adding Clock Hands	Add the following sprites and set their sizes: - **Hour_handle.png** (size 50) - **Minute_handle.png** - **Second_handle.png**
Setting Rotation Center	Select the **hour hand**, open the **Costume Editor**, and adjust the **pivot point** to the base of the hand. Repeat for minute and second hands.
Aligning Hands	Place all hands at the center of the clock. Use **go to front/back** to layer them properly.
Adding Alarm Button	Add the **Alarm button** sprite and place it on the stage. Resize if needed.
Saving the Project	Save the project as **my_alarm_clock.sb3**.

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Worksheet No	3.3
Name of Chapter	Let’s Develop Software!
Name of Activity	Coding the Alarm Clock
Software Used	PictoBlox
Time	40 Minutes

Order of Events

Coding the Second Hand	**Select the second hand sprite. Use the following code:** **when flag clicked** **forever** **point in direction (current second * 6)**
Coding the Minute Hand	Select the **minute hand** sprite. Use: **when flag clicked** **forever** **point in direction (current minute * 6)**
Coding the Hour Hand	Select the **hour hand** sprite. Use: **when flag clicked** **forever** **point in direction (current hour * 30 + current minute * 0.5)**
Testing the Clock	Click the **green flag**. Check if all hands move correctly according to the system time.
Saving Progress	Save the project.

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Worksheet No	3.4
Name of Chapter	Let’s Develop Software!
Name of Activity	Setting the Alarm and Adding Sound
Software Used	PictoBlox
Time	40 Minutes

Order of Events

Creating Variables	**Create two variables:** **- Hour** **- Minute**
Coding the Alarm Button	Select the **Alarm button** sprite. Use: **when this sprite clicked** **ask "Enter Hour in 24Hr Format" and wait** **set Hour to answer** **ask "Enter Minute" and wait** **set Minute to answer**
Adding Alarm Sound	Use: **wait until Hour = current hour and Minute = current minute** **broadcast alarm**
Playing Sound	Add a sound from the library (e.g., Dance Magic). Use: **when I receive alarm** **repeat 2** **play sound Dance Magic until done**
Final Test	Set the alarm for a future time and test if the sound plays correctly.
Export and Save	Export the project as **water_bell_alarm.sb3** and save.