Experiment – 1 Functional Testing of Devices

Aim: Flashing the OS on to the device into a stable functional state by porting desktop environment with necessary packages.

Components Required: Raspberry Pi kit, SD card, card Reader, Ethernet cable, keyboard, mouse, Operating system, Power supply, AC to DC Adapter, Socket, HDMI 2 VGA cable.

Procedure :

Step 1: We need to insert SD card into a card reader and format it to avoid unpredictable issues that may occur during data read and write operation in a device.

Step 2: After that download the Raspberry Pi OS and Raspberry Pi Imager and copy the Raspberry Pi OS into the SD card.

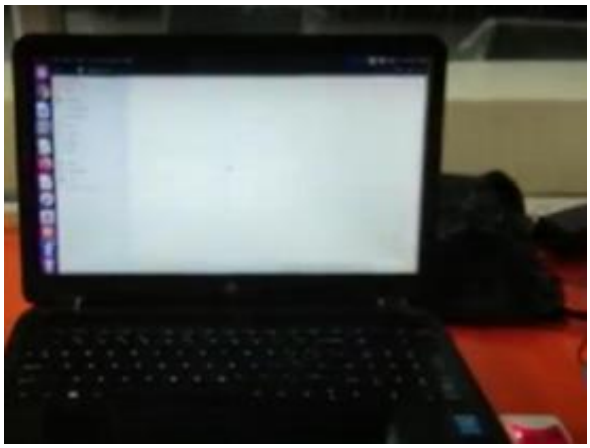
Step 3: With the help of HDMI 2 VGA cable we are interfacing the Raspberry Pi and the screen. Connect the VGI cable to the CPU and other end is connected to Raspberry Pi kit . Now connect the Keyboard and mouse to Raspberry Kit USB ports for giving the input. For internet access connect the Ethernet pin and ON the power supply.

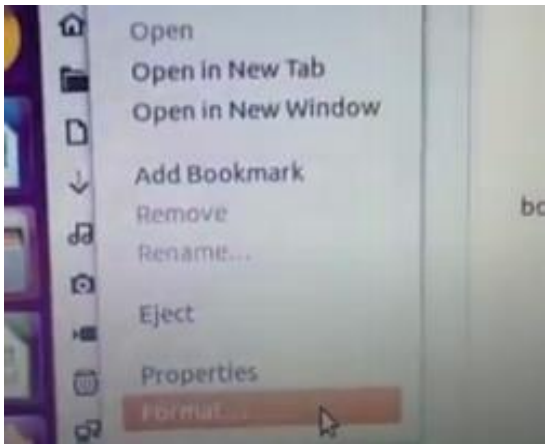
Step 4 : When the system starts opening, for flashing the OS into Raspberry Pi some basic system settings must be done . Go to the preferences and click on Raspberry Pi configuration and the whole description of Raspberry Pi OS is visible and go to interfaces and click OK on all then we can observe the flashing of Raspberry Pi OS on Desktop.

OUTPUT:

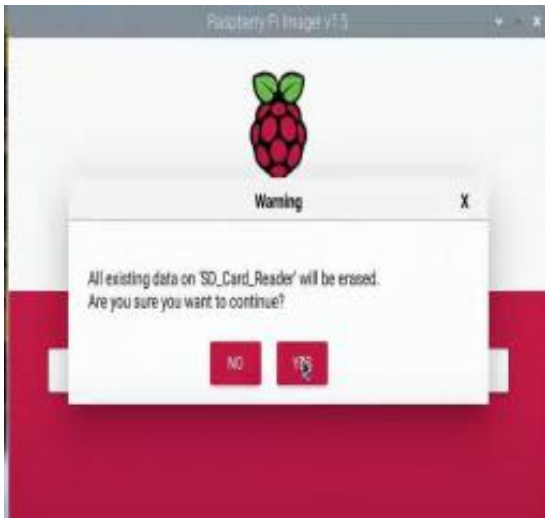
RASPBEERY PI KIT

Inserting the SD card into card reader and formatting the SD card

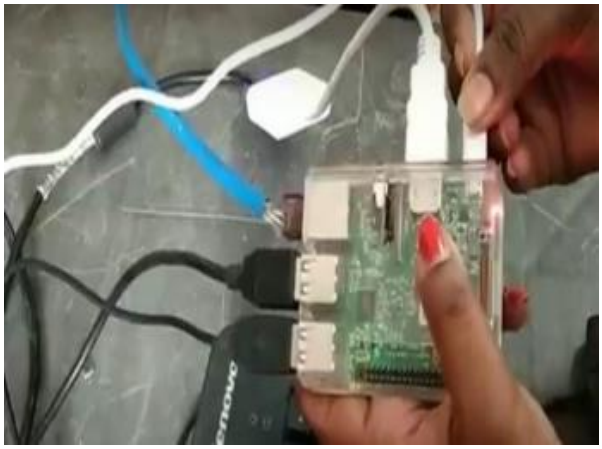




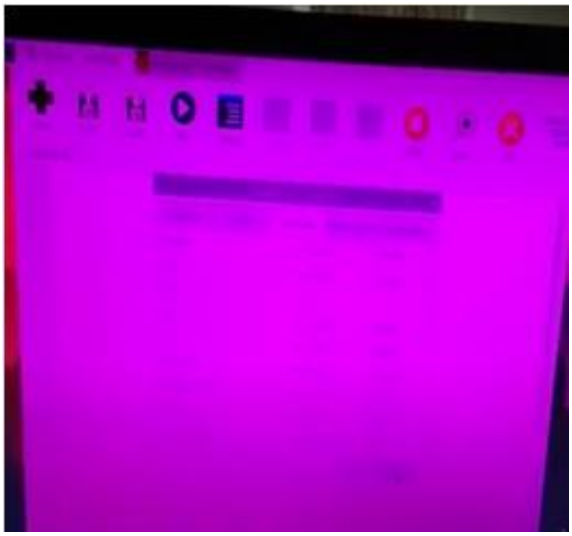
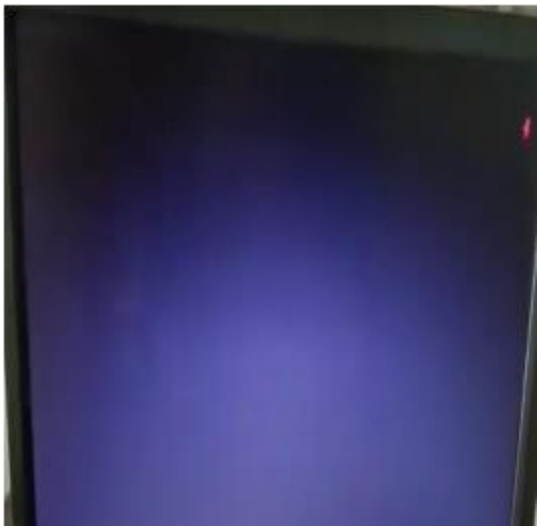
Installation of Raspberry Pi Imager and OS into SD card

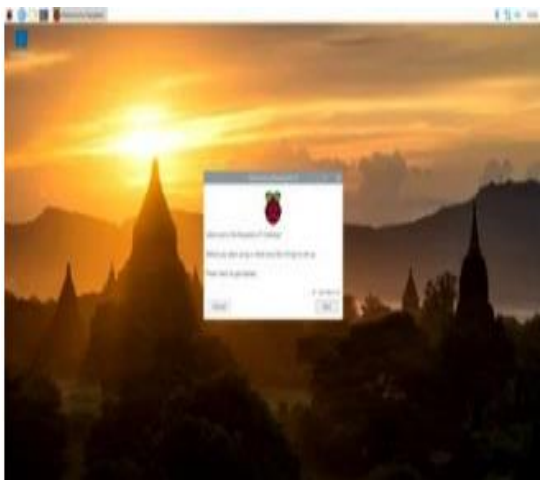


Connecting the interfaces required for flashing the Raspbeery Pi OS



Basic system settings and on Raspbeery Pi OS and flashing it



RESULT:

In this way Flashing the OS on to the device into a stable functional state by porting desktop environment with necessary packages is observed.