The first lab assignment

1. Start the RPi in the „rescue mode”. Please investigate the possibilities of this mode.
   1. Please check the functionalities offered by the „rescue mode”. In particular:
      1. Please test possibilities to transfer files between the RPi and the workstation (in both directions)
      2. Please test the possibilities to use pipes to unpack „on the fly” the files transferred via network (it will be useful when installing the user system with rootfs stores in a dedicated SD card partition).

   Please describe in the report performed tests and their results.

2. Compile the Linux system with „initramfs” as the root filesystem:
   1. RPi should automatically connect to the network, using DHCP to obtain the network parameters.If the network cable is not connected, the connection should be automatically established after connection of the cable. Similarly – disconnection of the cable should shut down the network connection.
   2. The system host name should be set to: „firstname_lastname” of the student (or „lastname1_lastname2” in case of a 2-person team).
   3. When the Internet connection is established, the system clock should be synchronized with an NTP server (preferably using the „NTP server pool”)
   4. The system should contain additional programs pointed by the teacher (e.g. the WWW server serving the static html page, interpreter of a script language with simple script installed etc.)
   5. Except of the „root” user, there should be a plain user (with arbitrarily chosen name) account created. Both users should have set the passwords.

Please describe in the report how you have fulfilled the above requirements. Explain which of them were automatically provided by the default BR configuration, which required the installation of additional packages or the reconfiguration of certain packages.

Please remember to attach to the report an archive enabling automatical recreation of your system (please see the notes on creating an archive of the project).