How to install R shiny web app on server :

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1. Change the unix time-zone  
  
#Go to 'System Settings' >> Personal : 'Language Support' >> set 'Regional Formats' to "English (United States)"  
#Then, to 'System Settings' >> System : 'Time & Date' >> Location: "Bangkok" (Automatically from the Internet)

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2. Install SQL server  
  
sudo apt-get install -y curl  
sudo apt-get update  
sudo apt-get upgrade  
curl https://packages.microsoft.com/keys/microsoft.asc | sudo apt-key add -  
curl https://packages.microsoft.com/config/ubuntu/16.04/mssql-server.list | sudo tee /etc/apt/sources.list.d/mssql-server.list  
sudo apt-get update  
sudo apt-get install -y mssql-server

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3. Install unix-ODBC  
  
curl https://packages.microsoft.com/keys/microsoft.asc | sudo apt-key add -  
curl https://packages.microsoft.com/config/ubuntu/16.04/prod.list | sudo tee /etc/apt/sources.list.d/msprod.list  
sudo apt-get update  
sudo apt-get install -y mssql-tools unixodbc-dev  
echo 'export PATH="$PATH:/opt/mssql-tools/bin"' >> ~/.bash\_profile  
echo 'export PATH="$PATH:/opt/mssql-tools/bin"' >> ~/.bashrc  
source ~/.bashrc

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4. Install R and R-server  
  
sudo apt-get install -y r-base  
sudo su - -c "R -e \"install.packages('shiny', repos='https://cran.rstudio.com/')\""  
sudo apt-get install -y gdebi-core  
wget https://download3.rstudio.org/ubuntu-12.04/x86\_64/shiny-server-1.5.3.838-amd64.deb  
echo y | sudo gdebi shiny-server-1.5.3.838-amd64.deb  
  
#sudo su - -c "R -e \".libPaths()\""  
#It must get the result as  
#[1] "/usr/local/lib/R/site-library" "/usr/lib/R/site-library"  
#[3] "/usr/lib/R/library"

sudo nano /usr/lib/R/etc/Renviron  
#set commenting to the line as '#R\_LIBS\_USER=${R\_LIBS\_USER-‘~/R/x86\_64-pc-linux-gnu-library/3.2’}'

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5. Install all packages used in the shiny web app  
  
sudo chmod 777 /usr/local/lib/R/site-library  
  
sudo apt-get install -y r-cran-rjava  
sudo add-apt-repository -y ppa:openjdk-r/ppa   
sudo apt-get update   
sudo apt-get install -y openjdk-7-jdk   
sudo apt-get install -y libgeos-dev  
sudo apt-get install -y libcurl4-gnutls-dev  
sudo apt-get install -y libssl-dev  
sudo R CMD javareconf  
sudo su - -c "R -e \"install.packages(c('RJDBC', 'XLConnect', 'devtools', 'RJSONIO', 'sp', 'png', 'pixmap', 'mapdata', 'maptools', 'maps', 'rgeos','RODBC','lubridate','dplyr','ggplot2','plotly','scales','DT','shinyTime'), repos='https://cran.rstudio.com/')\""

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6. Get 'preserve\_logs true;' to the 1st line in /etc/shiny-server/shiny-server.conf  
  
sudo nano /etc/shiny-server/shiny-server.conf  
#Y to edit and get 'preserve\_logs true;' to the 1st line  
sudo systemctl start shiny-server

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7. Move the file to /srv/shiny-server/ to run the web app  
  
sudo apt-get install -y subversion  
svn checkout https://github.com/ieatbaozi/R-practicing/trunk/powermeterreport/   
#Download from git to user home  
  
cd /  
sudo mv /home/administrator/powermeterreport/ /srv/shiny-server/   
#From you path /home/\*username\*/ (in the case is 'admistrator') to server directory  
  
cd -  
sudo systemctl restart shiny-server

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8. Set Crontab hourly restarting the server  
  
sudo apt-get install -y cron  
sudo visudo  
# set under following line into sudo visudo   
username ALL=(ALL) NOPASSWD: /etc/cron.hourly/zz-reboot  
  
sudo nano /etc/cron.hourly/zz-reboot  
# set under following 2 lines into zz-reboot   
 #!/bin/bash  
 systemctl restart shiny-server  
  
sudo chmod a+x /etc/cron.hourly/zz-reboot

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9. Test the server by 'server address:3838' then test the domain 'server address:3838/powermeterreport/' #(Can skip this! and Ended at 8.)  
  
Note : Always check log files in /var/log/shiny-server/ it takes around 1b to most 2kb each file up to characters in log. It is able to delete log files to clear unnecessary allocation but actually can ignore this point.  
#sudo truncate -s 0 /var/log/shiny-server/\*log   
#For setting bytes to zero but still keep files' name.