

SHELL

1 Armstrong or Not

```
#!/bin/bash
echo "Enter the number"
read num
n=$num
sum=0
while [ $num -gt 0 ]
do
rem=$((($num%10))
sum=$((($sum+($rem * $rem * $rem)))
num=$((($num/10))
done
if [ $sum -eq $n ]
then
echo "$n is armstrong"
else
echo "$n is not armstrong"
fi
```

2 Calculator

```
#!/bin/bash
echo "Enter two numbers:"
read a
read b
echo "Enter choice:"
echo "1.Addition"
echo "2.Substraction"
echo "3.Multiplication"
echo "4.Division"
echo "Enter a choice"
read ch
case $ch in
1)res=`echo $a+$b|bc`;
2)res=`echo $a-$b|bc`;
3)res=`echo $a*$b|bc`;
4)res=`echo "scale=2;$a/$b"|bc`;
esac
echo "Result=$res"
```

3 circle

```
#!/bin/bash
echo "Enter the radius"
read r
area=$(echo "scale=2;3.14*($r*$r)"|bc)
echo "area of circle=$area"
```

4 Count of line

```
#!/bin/bash
echo Enter the file name
read file
w=`cat $file | wc -w`
c=`cat $file | wc -c`
l=`grep -c "." $file`
echo Number of characters in $file is $((
$c - 1 ))
echo Number of words in $file is $w
echo Number of lines in $file is $l
```

5. Factorial

```
#!/bin/bash
echo "Enter a number"
read num
fact=1
while [ $num -gt 1 ]
do
fact=$((fact * num))
num=$((num - 1))
done
echo "factorial=$fact"
```

6 Fibonacci

```
#!/bin/bash
echo "Enter the limit"
read n
x=0
y=1
i=2
echo "Fibonacci series upto $n terms"
echo "$x"
echo "$y"
while [ $i -lt $n ]
do
i=`expr $i + 1`
z=`expr $x + $y`
echo "$z"
x=$y
y=$z
done
```

7 Good Morning

```
clear
hours=`date|cut -c12-13`
if [ $hours -le 12 ]
then
echo "good morning"
else
if [ $hours -le 16 ]
then
echo "good afternoon"
elif [ $hours -le 20 ]
then
echo "good evening"
else
echo "good night"
fi
```

8 Gross salary

```
#!/bin/bash
echo "enter the basic salary:"
read basic
a=$(( $basic * 40 ))
da=$(( $a / 100 ))
b=$(( $basic * 20 ))
hra=$(( $b / 100 ))
gsalary=$(( $basic + $da + $hra ))
echo "The gross salary is : $gsalary"
```

9 Largest of three number

```
#!/bin/bash
echo "Enter first number"
read first
echo "Enter second number"
read sec
echo "Enter third number"
read third
if [ $first -gt $sec ]; then
if [ $first -gt $third ]; then
echo "$first is greatest number"
else
echo "$third is greatest number"
fi
else
if [ $sec -gt $third ]; then
echo "$sec is greatest number"
else
echo "$third is greatest number"
fi
fi
```

10 Mean and stadard Deviation

```
#!/bin/bash
echo "Enter first number:"
read n1
echo "Enter second number:"
read n2
echo "Enter third number:"
read n3
m=$((($n1 + $n2 + $n3))
mean=$(echo "scale=2;$m / 3"|bc)
echo "mean=$mean"
y1=$(echo "$n1-$mean"|bc)
y2=$(echo "$n2-$mean"|bc)
y3=$(echo "$n3-$mean"|bc)
x1=$(echo "$y1 ^ 2"|bc)
x2=$(echo "$y2 ^ 2"|bc)
x3=$(echo "$y3 ^ 2"|bc)
s=$(echo "scale=2;$(echo $x1 + $x2
+$x3|bc)/2"|bc)
sd=$(echo "sqrt($s)"|bc)
echo "standard deviation=$sd"
```

11 Prime number

```
#!/bin/bash
echo "Enter the limit:"
read n
echo "The prime numbers between 1 and
$n are:"
for((i=2;i<=$n;i++))
do
f=0
for((j=2;j<=$((i/2));j++))
do
if [ $((i%$j)) -eq 0 ]
then
f=1
fi
done
if [ $f -ne 1 ]
then
echo $i
fi
done
```

12 Reverse of number

```
#!/bin/bash
echo "Enter the number:"
read n
sd=0
rev=0
g=$n
while [ $n -gt 0 ]
do
sd=$((($n%10))
rev=$((($rev*10+$sd))
n=$((($n/10))
done
echo "Reverse of $g is:$rev"
```

13 Sum of digits

```
#!/bin/bash
echo "Enter a number"
read n
g=$n
s=0
while [ $n -gt 0 ]
do
k=$((($n%10))
n=$((($n/10))
s=$((($s+$k))
done
echo "sum of digits of $g is:$s"
```

ANDROID

1.Hello world

string.xml

```
<string name="btnn">
```

```
Display<string>
```

activity main xml(button)

```
@string/btnn"/>
```

main activity.java

```
Button btn;
btn=findViewById(R.id.button1);
btn.setOnClickListener(new on click
listener()
```

```
Toast.makeText(MainActivity.this,"Hello
android",Toast.LENGTH_SHORT).show();
```

2.Display string

string.xml

```
<string name="tv1">enter the
string</string>
```

```
<string name="btn">show</string>
activity main xml
android:text="@string/tv1"
android:text="@string/btn" />
```

main activity.java

```
EditText tv1;
Button btn;

tv1=(EditText)findViewById(R.id.editText
1);
btn=(Button) findViewById(R.id.button1);
btn.setOnClickListener(new
OnClickListener()
```

```
tv1.setText(tv1.getText().toString());
Toast.makeText(MainActivity.this,tv1.get
Text().toString()Toast.LENGTH_LONG).sh
ow();
```

3.Add two numbers

String.xml

```
<string name="tv1">first number</string>
<string name="tv2">secndumber</string>
<string name="btn">display</string>
```

activity main xml(textview)

```
@string/tv1"
@string/tv2"
@string/btnn"/>
```

main activity.java

```
Edittext txt1;
Edittext txt2;
Button btn;
textview tview;
float a;
float b;

txt1=findViewById(R.id.editText1);
txt2=findViewById(R.id.editText2);
btn=findViewById(R.id.button1);
tview=findViewById(R.id.textview3);
btn.setOnClickListener(new on click listener()
```

```
a=float.parseFloat(txt1.getText() to string());
b=float.parseFloat(txt2.getText() to string());
c=a+b;
tview.setText(Float.toString(c));
```

4.Radio button

String.xml

```
<string name="m">male</string>
<string name="f">female</string>
<string name="o">other</string>
```

activity main xml

```
android:text="@string/m" />
android:text="@string/f" />
android:text="@string/o" />
android:text="@string/btn" />
```

main activity.java

```
Button btn;
RadioGroup rdg;
RadioButton rdb;
```

```
btn=(Button) findViewById(R.id.button1);
rdg=(RadioGroup)
findViewById(R.id.radioGroup1);
btn.setOnClickListener(new OnClickListener() {
```

```
int seletid=rdg.getCheckedRadioButtonId();
rdb=(RadioButton)findViewById(seletid);
Toast.makeText(MainActivity.this,
rdb.getText().toString(),Toast.LENGTH_LONG)
.show();
```

5.Relative layout

string.xml

```
<string name="btn">SHOW</string>
```

activity main xml

```
android:text="@string/btn" />
```

main activity.java

```
RelativeLayout r1;
Button btn;
```

```
r1=(RelativeLayout) findViewById(R.id.relayout)
btn=(Button) findViewById(R.id.button1);
btn.setOnClickListener(new OnClickListener() {
```

```
r1.setBackgroundColor(Color.RED);
```

6.Multiplication table

string.xml

```
<string name="btn">show</string>
```

activity main xml

```
android:text="@string/btn" />
```

main activity.java

```
EditText txt;
Button btn;
TextView txtv;
```

```
txt=(EditText) findViewById(R.id.editText1);
btn=(Button) findViewById(R.id.button1);
txtv=(TextView) findViewById(R.id.textView1);
btn.setOnClickListener(new OnClickListener() {
```

```
StringBuffer temp=new StringBuffer();
String num=txt.getText().toString();
int n=Integer.parseInt(num);
```

7.Alert box

activity main xml

```
android:text="SHOW" />
```

main activity.java

```
Button btn;
```

```
btn=(Button) findViewById(R.id.button1);
btn.setOnClickListener(this);
}
```

```
AlertDialog.Builder b1= new
AlertDialog.Builder(MainActivity.this);
b1.setIcon(R.drawable.ic_launcher);
b1.setTitle("Sample Alert Box");
b1.setMessage("Hello Good Morning");
b1.setPositiveButton("OK", new
DialogInterface.OnClickListener() {
```

```
Toast.makeText(MainActivity.this, "You
Clicked Ok", Toast.LENGTH_LONG).show();
```

```
b1.setNegativeButton("Cancel", new
DialogInterface.OnClickListener() {
```

```
Toast.makeText(MainActivity.this, "You
Clicked Cancel ",
Toast.LENGTH_LONG).show();
```

```
AlertDialog d1 = b1.create();
d1.show();
```

8.Spinner

main activity.java

```
Spinner sp;
TextView tv;
String [] items
={"Mouse", "Keyboard", "Speaker", "Printer"};
```

```
sp=(Spinner) findViewById(R.id.spinner1);
tv=(TextView)
findViewById(R.id.textView1);
sp.setOnItemSelectedListener(this);
```

```
ArrayAdapter<String> adt= new
ArrayAdapter<String>(this,
android.R.layout.simple_list_item_1,items);
sp.setAdapter(adt);
```

```
tv.setText(items[arg2]);
```

9.Check box

activity main xml

```
android:text="Android" />
android:text="JAVA" />
android:text="PHP" />
android:text="Shell Script" />
android:text="SHOW" />
```

main activity.java

```
CheckBox chk1,chk2,chk3,chk4;
Button btn;
```

```
chk1=(CheckBox)
findViewById(R.id.checkBox1);
chk2=(CheckBox)
findViewById(R.id.checkBox2);
chk3=(CheckBox)
findViewById(R.id.checkBox3);
chk4=(CheckBox)
findViewById(R.id.checkBox4);
btn=(Button)findViewById(R.id.button1);
btn.setOnClickListener(this);
}
```

```
StringBuffer strb= new StringBuffer();
strb.append("Android:").append(chk1.isChecked());
strb.append("\nJAVA:").append(chk2.isChecked());
strb.append("\nPHP:").append(chk3.isChecked());
strb.append("\nShellScript:").append(chk4.isChecked());
Toast.makeText(MainActivity.this,strb.toString(),Toast.LENGTH_LONG).show();
```

10.List items

main activity.java

```
ListView lv;
```

```
lv=(ListView) findViewById(R.id.listView1);
String
title[]={ "Google", "Facebook", "Twitter", "YouTube",
"Twitter", "Whatsapp", "Snapchat", "TikTok",
"Instagram", };
ArrayAdapter<String> adt = new
ArrayAdapter<String>(MainActivity.this, android.R.layout.simple_list_item_1, title);
lv.setAdapter(adt);
}
```

```
getMenuInflater().inflate(R.menu.main,
menu);
return true;
```

11.Another activity intent

activity main xml

```
android:text="Move To Next Activity" />
```

activity second.xml

```
android:text="Move To First Activity" />
```

main activity.java

```
Button btn;
```

```
btn=(Button) findViewById(R.id.button1);
btn.setOnClickListener(this); }
```

```
Intent i = new
Intent(MainActivity.this,SecondActivity.class);
startActivity(i);
```

second activity.java

```
Button btn;
```

```
btn= (Button) findViewById(R.id.button1);
btn.setOnClickListener(this);
}
```

```
Intent i = new
Intent(SecondActivity.this,MainActivity.class);
startActivity(i);
```

12.IP address

Androidmanifest.xml

```
<?xml version="1.0" encoding="utf-8"?>
<uses-sdk
android:minSdkVersion="8"
android:targetSdkVersion="17" />
<uses-permission
android:name="android.permission
.ACCESS_WIFI_STATE"/>
```

main activity.java

```
TextView tv;
String ipa;
```

```
tv=(TextView)
findViewById(R.id.textView1);
WifiManager wm = (WifiManager)
getSystemService(WIFI_SERVICE);
ipa=android.text.format.Formatter.formatIpAddress(wm.getConnectionInfo().getIpAddress());
tv.setText(ipa);
}
```

```
getMenuInflater().inflate(R.menu.main,
menu);
return true;
```

13.Menu items

activity main xml

```
android:title="Cut"/>
android:title="Copy"/>
android:title="Paste"/>
android:title="Google"/>
```

main activity.java

```
getMenuInflater().inflate(R.menu.main,
menu);
return true;
int id = item.getItemId();
if (id == R.id.copyItem)
{
Toast.makeText(MainActivity.this, "You
Clicked Copy Menu Item",500).show();
}
else
if (id == R.id.cutItem)
{
Toast.makeText(MainActivity.this, "You
Clicked Cut Menu Item",
Toast.LENGTH_LONG).show();
}
else
if (id == R.id.pasteItem)
{
```

