{

"cells": [

{

"cell\_type": "code",

"execution\_count": null,

"metadata": {},

"outputs": [],

"source": [

"import numpy as np\n",

"import pandas as pd"

]

},

{

"cell\_type": "code",

"execution\_count": null,

"metadata": {},

"outputs": [],

"source": [

"dataset = pd.read\_csv(r\"D:\\Geethanjaliexternship\\Bank.csv\")"

]

},

{

"cell\_type": "code",

"execution\_count": null,

"metadata": {},

"outputs": [],

"source": [

"dataset.head(3)"

]

},

{

"cell\_type": "code",

"execution\_count": null,

"metadata": {},

"outputs": [],

"source": [

"dataset.isnull().any()"

]

},

{

"cell\_type": "code",

"execution\_count": null,

"metadata": {},

"outputs": [],

"source": [

"from sklearn.preprocessing import LabelEncoder\n",

"le = LabelEncoder()\n",

"dataset[\"deposit\"] = le.fit\_transform(dataset[\"deposit\"])"

]

},

{

"cell\_type": "code",

"execution\_count": null,

"metadata": {},

"outputs": [],

"source": [

"dataset.head()"

]

},

{

"cell\_type": "code",

"execution\_count": null,

"metadata": {},

"outputs": [],

"source": [

"x = dataset.iloc[:,0:16].values\n",

"y = dataset.iloc[:,16].values"

]

},

{

"cell\_type": "code",

"execution\_count": null,

"metadata": {},

"outputs": [],

"source": [

"y"

]

},

{

"cell\_type": "code",

"execution\_count": null,

"metadata": {},

"outputs": [],

"source": [

"x"

]

},

{

"cell\_type": "code",

"execution\_count": null,

"metadata": {},

"outputs": [],

"source": [

"x.shape"

]

},

{

"cell\_type": "code",

"execution\_count": null,

"metadata": {},

"outputs": [],

"source": [

"from sklearn.preprocessing import OneHotEncoder\n",

"from sklearn.compose import ColumnTransformer\n",

"ct = ColumnTransformer([(\"oh\",OneHotEncoder(),[1,2,3,4,6,7,8,10,15])],remainder = \"passthrough\") #converts data to binary format\n",

"x = ct.fit\_transform(x)"

]

},

{

"cell\_type": "code",

"execution\_count": null,

"metadata": {},

"outputs": [],

"source": [

"x"

]

},

{

"cell\_type": "code",

"execution\_count": null,

"metadata": {},

"outputs": [],

"source": [

"x.shape"

]

},

{

"cell\_type": "code",

"execution\_count": null,

"metadata": {},

"outputs": [],

"source": [

"from sklearn.model\_selection import train\_test\_split\n",

"x\_train,x\_test,y\_train,y\_test = train\_test\_split(x,y,test\_size = 0.2,random\_state = 10000)"

]

},

{

"cell\_type": "code",

"execution\_count": null,

"metadata": {},

"outputs": [],

"source": [

"from sklearn.preprocessing import StandardScaler\n",

"sc = StandardScaler()\n",

"x\_train = sc.fit\_transform(x\_train)\n",

"x\_test = sc.fit\_transform(x\_test)"

]

},

{

"cell\_type": "code",

"execution\_count": null,

"metadata": {},

"outputs": [],

"source": [

"x\_test"

]

},

{

"cell\_type": "code",

"execution\_count": null,

"metadata": {},

"outputs": [],

"source": [

"from sklearn.linear\_model import LogisticRegression\n",

"logreg = LogisticRegression()\n",

"logreg.fit(x\_train,y\_train)"

]

},

{

"cell\_type": "code",

"execution\_count": null,

"metadata": {},

"outputs": [],

"source": [

"ypred = logreg.predict(x\_test)"

]

},

{

"cell\_type": "code",

"execution\_count": null,

"metadata": {},

"outputs": [],

"source": [

"ypred"

]

},

{

"cell\_type": "code",

"execution\_count": null,

"metadata": {},

"outputs": [],

"source": [

"y\_test"

]

},

{

"cell\_type": "code",

"execution\_count": null,

"metadata": {},

"outputs": [],

"source": [

"from sklearn.metrics import accuracy\_score\n",

"accuracy = accuracy\_score(ypred,y\_test)"

]

},

{

"cell\_type": "code",

"execution\_count": null,

"metadata": {},

"outputs": [],

"source": [

"accuracy"

]

},

{

"cell\_type": "code",

"execution\_count": null,

"metadata": {},

"outputs": [],

"source": [

"logreg.predict(ct.transform([[15,\"technician\",\"single\",\"tertiary\",\"no\",4225,\"yes\",\"no\",\"telephone\",5,\"jul\",5279,2,-1,0,\"success\"]]))"

]

},

{

"cell\_type": "code",

"execution\_count": null,

"metadata": {},

"outputs": [],

"source": []

}

],

"metadata": {

"kernelspec": {

"display\_name": "Python 3",

"language": "python",

"name": "python3"

},

"language\_info": {

"codemirror\_mode": {

"name": "ipython",

"version": 3

},

"file\_extension": ".py",

"mimetype": "text/x-python",

"name": "python",

"nbconvert\_exporter": "python",

"pygments\_lexer": "ipython3",

"version": "3.7.3"

}

},

"nbformat": 4,

"nbformat\_minor": 2

}