## PROGRAM [12]:

```
from sklearn.datasets import load_breast_cancer
from sklearn.ensemble import RandomForestClassifier, VotingClassifier
from sklearn.linear model import LogisticRegression
from sklearn.svm import SVC
from sklearn.model_selection import train_test_split
from sklearn.metrics import accuracy score
# Load dataset
data = load_breast_cancer()
X = data.data
y = data.target
# Split dataset into training and testing sets
X_train, X_test, y_train, y_test = train_test_split(X, y, test_size=0.2, random_state=42)
# Create individual models
Ir = LogisticRegression(random_state=42)
svc = SVC(kernel='linear', probability=True, random_state=42)
rf = RandomForestClassifier(n_estimators=10, random_state=42)
# Create ensemble model
ensemble = VotingClassifier(estimators=[('lr', lr), ('svc', svc), ('rf', rf)], voting='soft')
# Train ensemble model
ensemble.fit(X_train, y_train)
# Predict using ensemble model
y_pred = ensemble.predict(X_test)
# Calculate accuracy score
accuracy = accuracy_score(y_test, y_pred)
# Print accuracy score
print('Accuracy:', accuracy)
```

## **OUTPUT [12]:**

Accuracy: 0.956140350877193