# Patient's Condition Classification Using Drug Reviews

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# Problem Statement and Workflow

Doctors and Specialists using the results of tests labs of patients to classify their needed care, which is time-consuming. The purpose of this project is to utilize Natural Language Processing(NLP) and Machine Learning in classifying patient to reduce the efforts and time expanded by the doctors and evaluate the type of patient at an early stage.

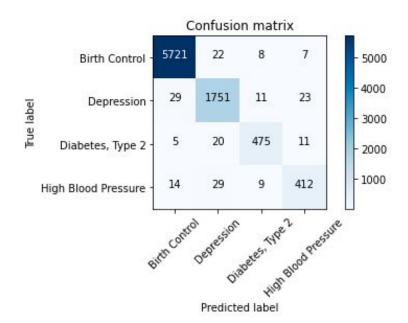
- Dataset https://archive.ics.uci.edu/ml/datasets/Drug+Review+Dataset+%28Drugs.com%29
- ☐ Lemmatization
- Model Building
- Evaluation

## Result

### **Bag of Word**

accuracy: 0.978

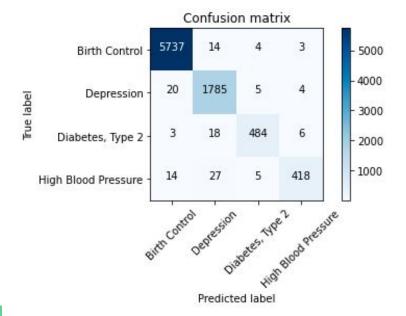
Confusion matrix, without normalization



### **TFIDF**: Trigrams

accuracy: 0.986

Confusion matrix, without normalization



```
In [49]:
        text = ["This is the third med I' ve tried for anxiety and mild depre
         ssion. Been on it for a week and I hate it so much. I am so dizzy, I hav
         e major diarrhea and feel worse than I started. Contacting my doc in the
         am and changing asap."]
         test = tfidf_vectorizer3.transform(text)
         pred1=pass_tf.predict(test)[0]
         pred1
```

Out[49]: 'Depression'