NGINX CACHING FOR API

For implementing caching in nginx you need to update your default nginx.conf file and need to replace the below configuration with your nginx.conf

```
user www-data;
worker_processes 4;
worker_cpu_affinity 0001 0010 0100 1000;

pid /run/nginx.pid;

worker_rlimit_nofile 2000;

events {
        worker_connections 1024;
        use epoll;
        multi_accept off;
        accept_mutex off;
}

http {

  ##
  # Basic Settings
  ##
  ####tuning settings
  ## Proxy Config ##
        proxy_set_header X-Forwarded-Host   $host;
        proxy_set_header X-Forwarded-Proto  $scheme;
        proxy_set_header X-Real-IP          $remote_addr;
        proxy_set_header X-Forwarded-Server $host;
        proxy_set_header X-Forwarded-For    $proxy_add_x_forwarded_for;
        proxy_connect_timeout         120;
        proxy_send_timeout            120;
        proxy_read_timeout            120;
        send_timeout                  30;
        proxy_buffers 8 32k;
        proxy_buffer_size 64k;
        ##
        ## Gzip Config ##
```

```nginx
        gzip on;
        gzip_comp_level  5;
        gzip_types application/json;
        ##

    ####


    sendfile on;
    sendfile_max_chunk 512k;
    tcp_nopush on;
    tcp_nodelay on;
        keepalive_timeout 35;
        keepalive_requests  8000;
    types_hash_max_size 2048;
    # server_tokens off;

    # server_names_hash_bucket_size 64;
    # server_name_in_redirect off;

    include /etc/nginx/mime.types;
    default_type application/octet-stream;

    ##
    # Logging Settings
    ##

    log_format main1 '{'
      '"remote_addr": "$remote_addr",'
      '"remote_user": "$remote_user",'
      '"time_local":  "$time_local",'
      '"request":      "$request",'
      '"status":       "$status",'
      '"body_bytes_sent": "$body_bytes_sent",'
      '"http_referer": "$http_referer",'
      '"http_user_agent": "$http_user_agent",'
      '"app_name": "rest-api"'
'}';

    access_log off;
    error_log /var/log/nginx/error.log;
```

```
	##
	# Gzip Settings
	##

	#gzip on;
	gzip_disable "msie6";

	# gzip_vary on;
	# gzip_proxied any;
	# gzip_comp_level 6;
	# gzip_buffers 16 8k;
	# gzip_http_version 1.1;
	# gzip_types text/plain text/css application/json
application/x-javascript text/xml application/xml application/xml+rss
text/javascript;

	##
	# nginx-naxsi config
	##
	# Uncomment it if you installed nginx-naxsi
	##

	#include /etc/nginx/naxsi_core.rules;

	##
	# nginx-passenger config
	##
	# Uncomment it if you installed nginx-passenger
	##

	#passenger_root /usr;
	#passenger_ruby /usr/bin/ruby;

	##
	# Virtual Host Configs
	##
	## Caching Config
		proxy_cache_path /tmp/cache levels=1:2 keys_zone=small:10m
inactive=30m max_size=2g;

	real_ip_header X-Forwarded-For;
```

```
        set_real_ip_from 172.31.0.0/20;


  log_format mylog '$remote_addr - $remote_user [$time_local] "$request"
$status $body_bytes_sent "$http_referer" "$http_user_agent" "$request_time
$upstream_response_time" "$request_body"';

  include /etc/nginx/sites-enabled/*;
}
```

Give 777 permission to the directory /tmp/cache because it will store the cache files

After that update you application configuration with somewhat like this

```
server {
        listen 80;
        server_name tatasky-production-rest-api.videoready.tv;
        ## Proxy Config ##
        underscores_in_headers on;
        client_max_body_size 20m;
        client_body_buffer_size 20m;
        proxy_set_header X-Forwarded-Host    $host;
        proxy_set_header X-Forwarded-Proto   $http_x_forwarded_proto;
        proxy_set_header X-Real-IP           $remote_addr;
        proxy_set_header X-Forwarded-Server $host;
        proxy_set_header X-Forwarded-For     $proxy_add_x_forwarded_for;
        proxy_set_header Host $http_host;
    proxy_buffering on;
        proxy_connect_timeout        600;
        proxy_send_timeout           600;
        proxy_read_timeout           600;
        send_timeout                 600;
        proxy_buffers 4 256k;
        proxy_buffer_size 128k;
        proxy_busy_buffers_size      256k;

        ##
        ## Gzip Config ##
        gzip on;
        gzip_comp_level  5;
```

```nginx
        gzip_types application/json;

location / {
            proxy_set_header X-Forwarded-Proto $http_x_forwarded_proto;
                proxy_set_header X-Forwarded-Host $host;
                proxy_set_header X-Forwarded-Server $host;
                proxy_set_header X-Forwarded-For
$proxy_add_x_forwarded_for;
                proxy_set_header Host $http_host;
                proxy_pass http://svc-rest-api-java;
            proxy_ignore_client_abort on;
                proxy_read_timeout 300s;
        }



        location ~ /pub/api/v1/config {
        default_type 'application/json' ;
      proxy_pass  http://svc-rest-api-java$request_uri;
                proxy_cache small;
                proxy_cache_methods GET;
                proxy_cache_key "$request_uri";
                proxy_cache_valid 30m;
                proxy_cache_use_stale error timeout invalid_header http_500
http_502 http_503 http_504 http_404 updating;
                proxy_cache_lock on;
                add_header X-Cached $upstream_cache_status;
        }

}
```

Modify your app config according your need and cache requirement

For js you need to setup expiry

Example:-

```nginx
location ~* \.(?:css|js)$ {
  expires 1y;
  access_log off;
```

```
    add_header Cache-Control "public";
}
```