<u>Insta API Specifications</u>

Table of Contents

Summary

These apis are provided for external applications to access data from Insta HMS.
They are divided into three categories.

- Clinician Centric: Clinician centric apis are those that can be used by
  hospital/clinic management systems to access information from Insta HMS for
  multiple patients, pre register new patients and to schedule appointments for
  them.
    1. Login
    2. Pre Register a new patient
    3. Enable patient mobile access
    4. Get patient details
    5. Get all Salutations,Cities,States,Patient Categories
    6. Get list of centers/Departmetns/Doctors of a hospital
    7. Get available time slots of a doctor to schedule an appointment
    8. Save a doctor appointment
    9. Update an appointment
    10. Cancel an appointment
    11. Get patient clinical data.
    12. Find Patient.

  These apis can be accessed by using the login credentials of an Insta HMS user.
  The rights to perform the activity will be checked and if no rights, an error will
  be returned.
- Patient Centric: Patient centric apis are those that can be used by a patient
  facing application. The patient can login using his MR No, and then use other
  services such as scheduler access to create, update, cancel appointments etc
  and to access his medical records.
    1. Login
    2. Pre Register a new patient
    3. Get all Salutations,Cities,States,Patient Categories
    4. Get list of centers/Departmetns/Doctors of a hospital
    5. Get available time slots of a doctor to schedule an appointment
    6. Save a doctor appointment
    7. Get Patient visit and medical record details

8. Get Test Value Trend (returns a document with trend)
9. Get Vitals Trend (returns a document with trend)
10. Change password
11. List of patient appointments details.
   - **Back Office APIs**: These APIs are provided for consumption by the back-office operations and integrations of a hospital / clinic. These APIs can be accessed using a special user created specifically purpose. The rights and constraints on usage of specific APIs under this category is however controoled through the normal role base access rights administered through the application

GET VERSION API

Operation: Returns the current API version number (GET Request to Insta)

Request URL: http:serveripaddress/instaapps/getAPIVersion.do?_method=getAPIVersion

Request Parameters:

Name	Type	Purpose	Required

Response Parameters:

Name	Type	Additional Information
return_message	String	Message specifying operation information
version	String	Denoting the current API version number
return_code	String	value

Status and Return codes:

Http Status code	return_code	return_message
200	2001	"Success"
500	1021	"Failed to retrieve the version"

Sample data :
```
{
        "version": "1.0.0-1051",
        "return_message": "Success",
        "return_code": "2001"

        }
```

Clinician Centric APIs

Operation: Login (POST Request to Insta)

Request URL: http:serveripaddress/instaapps/Customer/Login.do?_method=login

Request Parameters:

Name	Type	Purpose	Required	Format	Permitted Parameter Type	Deprecated Parameter Type
hospital_name	String	Customer name	Yes	String	URL	
X-insta-auth	String	User name (Provided by Insta) and Password(Provided by Insta)	Yes	String (Username) : String (Password)	Header	customer_user_id: URL customer_user_password :URL

Response Parameters:

Name	Type	Additional Information
request_handler_key	String	Internally generated key to be supplied with each subsequent API request
return_message	String	Message specifying operation information
return_code	String	value
Expires_in	Int	Validity of request_handler_key in minutes

Status and Return codes:

Http Status code	return_code	return_message
200	2001	"Success"
401	1021	"invalid username or password"
500	1022	"No request handler key assigned"
400	1002	"Mandatory fields are not supplied"
500	1023	"Failed to login the user"

Sample data :

```
{
        "request_handler_key": "instaapi_9a8dfffe690",
        "return_message": "Success",
        "return_code": "2001",

        "expires_in" : 40

        }
```

Operation: Return API level(GET request to insta)

Request URL: http:serveripaddress/instaapps/Customer/getAPILevel.do?_method=getAPILevel

Request Parameters:

Name	Type	Purpose	Required	Permitted Parameter Type	Deprecated Parameter Type
request_handler_key	String	request_handler provided after login into Insta	Yes	Header	URL

Response Parameters:

Name	Type	Additional Information
api_level	int	Current API level.
return_message	String	Message specifying operation information
return_code	String	value

Status and Return codes:

Http Status code	return_code	return_message
200	2001	"Success"
400	1021	"Failed to retrieve the API level"
400	1001	"invalid request token,please login again"

Sample data :
```
{
        "api_level" : 1
        "return_message": "Success"
        "return_code": "2001"

        }
```

Operation: Pre Registration request for new patient(POST request to insta)

Request URL: http:serveripaddress/instaapps/Customer/Registration/GeneralRegistration.do?_method=doPreRegistration

Request Parameters:

Name	Type	Purpose	Required	Permitted Parameter Type	Deprecated Parameter Type
request_handler_key	String	request_handler_key provided after login into Insta	Yes	Header	URL
patient_name	String	patient First name	Yes	URL	
middle_name	String	patient Middle name if any exists	No	URL	
last_name	String	Patient last name if any	No	URL	
salutation	String	salutation_id provided by Insta	Yes	URL	
dateOfBirth	String	patient date of birth in yyyy-MM-dd format	Yes	URL	
patient_gender	String	patient sex(provide M for male/F for Female/O for others)	Yes	URL	
patient_phone	String	Patient phone no. including country code. Eg. +919945654323 ('+' should be provided as	Yes	URL	

		URL encoded)			
patient_category_id	String	Patient belongs to which category	Yes	URL	
patient_state	String	Patient belongs to which state (state ID)	Yes	URL	
patient_city	String	Patient belongs to which city (city ID)	Yes	URL	
patient_address	String	Patient resides in which address	No	URL	
patient_area	String	Patient resides in which area (area ID)	No	URL	

Response Parameters:

Name	Type	Additional Information
mr_no	String	Insta generated mr_no according to patient category
return_code	String	value
return_message	String	Message specifying operation information

Status and Return codes:

Http Status code	return_code	return_message
200	2001	"Success"
400	1001	"invalid request token,please login again."
400	1002	" Mandatory fields are not supplied"
400	1003	"Permission Denied. Please check with Administrator."
400	1021	"Phone number does not contain the country code"
400	1022	"Phone number contains invalid characters"
400	1023	"First name contains invalid

		characters"
400	1024	"Middle name contains invalid characters"
400	1025	"Last name contains invalid characters"
400	1026	"Gender is invalid"
400	1027	"date of birth is invalid"
400	1028	"Patient is already registered."
500	1029	"Failed to Pre Register the Patient."

Sample data :
1.

```
{
        "mr_no": "00012291",
        "return_code": "2001",
        "return_message": "Success"
        }
```

Operation: PatientMobileAccess(POST request to insta)

Request URL: http:serveripaddress/instaapps/Customer/mobileaccess.do?
_method=enablePatientMobileAccess

Request Parameters:

Name	Type	Purpose	Required	Permitted Parameter Type	Deprecated Parameter Type
request_handle r_key	String	request_handle r_key provided after login into Insta	Yes	Header	URL
mr_no	String	mr_no provided by insta	Yes	URL	
date_of_birth	String	Patient data_of_birth(yyyy-MM-dd) format	Yes	URL	
mobile_no	String	Patient mobile number	Yes	URL	
gender	String	Patient gender value(M/F)	Yes	URL	

Response Parameters:

Name	Type	Additional Information
Patient_mobile_password	String	Given mobile_password
return_message	String	Message specifying operation information
return_code	String	value

Status and Return codes:

Http Status code	return_code	return_message
400	1001	"invalid request token,please login again"
400	1002	" Mandatory fields are not

		supplied"
400	1003	"Permission Denied. Please check with Administrator."
400	1021	"date_of_birth format is not valid, please enter yyyy-MM-dd format"
500	1022	"Failed to create the password"
400	1023	"Given values are invalid"
400	1024	"no patient found with given parameter"
200	2001	"Success"

Sample data :
1.
```
{
        "patient_mobile_password": "J0hdGI",
        "return_code": "2001",
        "return_message": "Success"

}
```

Operation: Get Patient Details(GET request to insta)

Request URL: http:serveripaddress/instaapps/Customer/Registration/GeneralRegistration.do?_method=getPatientDetails

Request Parameters:

Name	Type	Purpose	Required	Permitted Parameter Type	Deprecated Parameter Type
request_handler_key	String	request_handler_key provided after login into Insta	Yes	Header	URL
mr_no	String	mr_no provided by insta	Yes	URL	

Response Parameters:

Name	Type	Additional Information
patient_details	List<Map>	Patient details
return_message	String	Message specifying operation information
return_code	String	value

Status and Return codes:

Http Status code	return_code	return_message
400	1002	" Mandatory fields are not supplied"
400	1001	"invalid request token,please login again"
400	1003	"Permission Denied. Please check with Administrator."
400	1021	"invalid MRNO"
200	2001	"Success"

Sample data :

1.
```json
{
"patient_details": {

        "patient_city": "ct0027",
        "dateofbirth": "1999-05-05",
        "other_allergies": "",
        "custom_list6_value": "",
        "patient_category_id": 1,
        "patient_phone2": "",
        "custom_list9_value": "",
        "expected_dob": "",
        "email_id": "",
        "no_allergies": "",
        "death_date": "",
        "custom_field3": "",
        "custom_field2": "",
        "custom_field1": "",
        "middle_name": "",
        "custom_field7": "",
        "custom_field6": "",
        "custom_field5": "",
        "custom_list3_value": "",
        "custom_field4": "",
        "custom_list4_value": "",
        "custom_field9": "",
        "custom_field8": "",
        "country": "",
        "patient_gender": "M",
        "last_name": "",
        "mr_no": "00012272",
        "food_allergies": "",
        "government_identifier": "",
        "custom_list5_value": "",
        "dead_on_arrival": "N",
        "patient_area": "",
        "identifier_id": "",
        "patient_phone": "9988776657",
        "med_allergies": "",
        "patient_address": "",
        "oldmrno": "",
        "first_visit_reg_date": "",
        "patient_name": "ravi",
        "custom_field16": "",
        "custom_field15": "",
        "patient_state": "st0025",
        "custom_field18": "",
```

```
        "custom_field17": "",
        "custom_field19": "",
        "custom_list1_value": "",
        "mobile_password": "J0hdGI",
        "custom_field10": "",
        "original_mr_no": "",
        "custom_field11": "",
        "custom_field12": "",
        "custom_field13": "",
        "custom_field14": "",
        "custom_list2_value": "",
        "custom_list8_value": "",
        "salutation": "solu003",
        "death_reason_id": "",
        "death_time": "",
        "custom_list7_value": ""
}

        "return_code": "2001",
        "return_message": "Success"

}
```

Operation: Get MasterData(GET request to insta)

Request URL:

http:serveripaddress/instaapps/Customer/Registration/GeneralRegistration.do?
_method=getRegMasterData

Request Parameters:

Name	Type	Purpose	Required	Permitted Parameter Type	Deprecated Parameter Type
request_handler_key	String	request_handler provided after login into Insta	Yes	Header	URL

Response Parameters:

Name	Type	Additional Information
return_message	String	Message specifying operation information
return_code	String	value
allStates	List<Map>	AllState details
allCities	List<Map>	AllCities details
allSalutations	List<Map>	AllSalutations details
allPatientCategories	List<Map>	AllPatientCategories details

Status and Return codes:

Http Status code	return_code	return_message
400	1001	"invalid request token,please login again"
400	1003	"Permission Denied. Please check with Administrator."
200	2001	"Success"

Sample data :
1.
{"allStates": [

      {

         "state_name": "GOA",

```json
                "state_id": "ST0011",
                "country_id": "CM0001"
        },
        {
                "state_name": "GUJARAT",
                "state_id": "ST0012",
                "country_id": "CM0001"
        }
        ]
        "allCities": [
{
        "city_id": "CT0002",
        "state_id": "ST0002",
        "city_name": "OTHER"
},
{
        "city_id": "CT0003",
        "state_id": "ST0003",
        "city_name": "OTHER"
},
]
"allPatientCategories": [
{
        "center_id": 0,
        "category_name": "General",
        "category_id": 1
},
{
        "center_id": 0,
        "category_name": "new",
        "category_id": 3
},
"allSalutations": [
{
        "salutation": "Baby",
        "gender": "",
        "salutation_id": "SALU0008"
},
{
        "salutation": "Dr.",
        "gender": "",
        "salutation_id": "SALU0007"
},
```

```
    ]
        "return_code": "2001",
        "return_message": "Success"

    }
```

Operation: Request for list of all centers/departments and doctors in them (GET Request to Insta)

Request URL:
http:serveripaddress/instaapps/Customer/doctorscheduler.do?_method=getSchedulerMasterData

Request Parameters:

Name	Type	Purpose	Required	Permitted Parameter Type	Deprecated Parameter Type
request_handler_key	String	request_handler provided after login into Insta	Yes	Header	URL
status	String	Can have value as 'all'. If provided, api returns active and inactive centers, departments and doctors. If not provided , api returns only active centers, departments and doctors.When status parameter provided, inactive doctors as well as doctors having inactive association with center are included in api response along with active doctors.	No	URL	

Response Parameters:

Name	Type	Additional Information
return_message	String	Message specifying operation information
return_code	String	value
hospital_center_master	List<Map>	hospital_center_master details
hospital_departments	List<Map>	hospital_departments details
hospital_doctors	List<Map>	hospital_doctors details

Status and Return codes:

Http Status code	return_code	return_message
400	1001	"invalid request token,please login again"
400	1003	"Permission Denied. Please check with Administrator."
400	1021	"Invalid status parameter"
200	2001	"Success"

Sample data :
1.
```
{
  "hospital_center_master": [

    {
            "center_code": "Default Center",
            "center_address": "dddddddddddddddd",
            "country_id": "CM0003",
            "region_id": "",
            "hospital_center_service_reg_no": "DHA-F-0000560",
            "city_id": "CT0618",
            "center_contact_phone": "77777777777",
            "state_id": "ST0037",
            "accounting_company_name": "Ddddddddddddd",
            "health_authority": "DHA",
            "center_name": "Default Center",
            "updated_timestamp": "2015-08-07T07:29:10Z",
            "created_timestamp": "2014-01-29T22:46:36Z",
            "center_id": 0,

            "status":"A"
```

        },
hospital_doctors": [

        {
                "doctor_name": "Prof. Dr. Semir Al Samarrai ",
                "consulting_doctor_flag": "N",
                "doctor_center_status":"A",
                "doctor_status":"A",
                "payment_eligible": "N",
                "doctor_type": "HOSPITAL",
                "allowed_revisit_count": "",
                "doctor_mail_id": "",
                "doctor_id": "DOC0045",
                "doctor_license_number": "MS0237-7",
                "custom_field4_value": "",
                "dept_id": "DEP0018",
                "qualification": "",
                "ip_discharge_consultation_validity": "",
                "custom_field3_value": "",
                "updated_timestamp": "2014-01-30T09:46:37Z",
                "overbook": false,
                "created_timestamp": "2014-01-30T09:46:37Z",
                "custom_field1_value": "",
                "ip_template_id": 0,
                "specialization": "",
                "ip_discharge_consultation_count": "",
                "custom_field2_value": "",
                "res_phone": "",
                "practition_type": " ",
                "ot_doctor_flag": "Y",
                "doctor_mobile": "",
                "schedule": true,
                "registration_no": "",
                "doctor_address": "",
                "op_consultation_validity": "",
                "clinic_phone": "",
                "center_id": 0,
                "custom_field5_value": "",
                "payment_category": 1,
                "doc_center_id": 6
        },
  "hospital_departments": [

        {
                "dept_type_id": "",
                "dept_id": "DEP0016",

```
                "cost_center_code": "Administration",
                "dept_name": "Administration",
                "status":"A"
        },

         "return_code": "2001",
         "return_message": "Success"
}
```

Operation: Request for selected doctor's available time slots (GET Request to Insta)

Request URL:
http:serveripaddress/instaapps/Customer/doctorscheduler.do?_method=getDoctorAvailabilitySlots

Request Parameters:

Name	Type	Purpose	Required	Permitted Parameter Type	Deprecated Parameter Type
request_handler_key	String	request_handler provided after login into Insta	Yes	Header	URL
resource_id	String	doctor chossen by user	Yes	URL	
appointment_date	String	appointment_date(yyyy-MM-dd)	No	URL	
center_id	String	center_id of the doctor	No	URL	

If center_id is 0, the available time slots for all centers are returned.

Response Parameters:

Name	Type	Additional Information
return_message	String	Message specifying operation information
return_code	String	value
doctor_first_available_date	String	Doctor availablity Date
doctor_available_times	List<String>	Doctor availablity times
doctor_available_times_with_centers	JSON object	Doctor availability times with center_id against each slot

Status and Return codes:

Http Status code	return_code	return_message

400	1001	"invalid request token,please login again"
400	1003	"Permission Denied. Please check with Administrator."
400	1002	" Mandatory fields are not supplied"
400	1021	"Invalid appointment date"
200	2001	"Success"

Sample data :
1.

```
{
     "doctor_first_available_date": "2015-09-11"

       "doctor_available_times": [
                 "2015-09-11T02:30:00Z"
           ],
       "doctor_available_times_with_centers":   {

       {
              "center_id": 0,
              "timeslot": "2015-09-11T02:30:00Z"
       },
       }

        "return_code": "2001",
        "return_message": "Success"
}
```

Operation: Save appointment request (POST request to insta)

Request URL: http:serveripaddress/instaapps/Customer/doctorscheduler.do?
_method=saveAppointment

Request Parameters:

Name	Type	Purpose	Required	Permitted Parameter Type	Depricated Parameter Type
request_handler_key	String	Customer name	Yes	Header	URL
appointment_date	String	appointment date choosen by user(yyyy-MM-ddTHH:mm:ss.sssZ / yyyy-MM-ddTHH:mm:ssZ)	Yes	URL	
resource_id	String	octor choosen by user	Yes	URL	
center_id	String	Clinic choosen by user	Yes	URL	
mr_no	String	mr_no passed by insta after pre registration if it is a new patient or existing mr_no of the patient.	Yes	URL	

Response Parameters:

Name	Type	Additional Information
return_message	String	Message specifying operation information
return_code	String	value

appointment_id	Integer	Value

Status and Return codes:

Http Status code	return_code	return_message
400	1001	"invalid request token,please login again"
400	1002	"Mandatory fields are not supplied"
400	1003	"Permission Denied. Please check with Administrator."
400	1021	"Resource is not schedulable"
400	1022	"This time slot is already booked for this patient"
400	1023	"The time slot for this resource is already booked"
400	1024	"The resource is not available"
500	1025	"failed to book the Appointment."
400	1026	"Invalid appointment date"
400	1027	"Appointment can not be booked for default center"
400	1028	"The number of appointments booked for this slot has hit the overbook limit"
400	1029	"Please update the patient's mobile number before booking an appointment"
200	2001	"Success",

Sample data :
1.
```
{
        "appointment_id": 53476,
        "return_message": "Success",
        "return_code": "2001"


}
```

Operation: Update appointment request (POST request to insta)

Request URL: http:serveripaddress/instaapps/Customer/doctorscheduler.do?
_method=updateAppointment

Request Parameters:

Name	Type	Purpose	Required	Permitted Parameter Type	Deprecated Parameter Type
request_handler_key	String	request_handler provided after login into Insta	Yes	Header	URL
appointment_id	String	unique appointment_id provided by insta	Yes	URL	
appointment_date	String	appointment date choosen by user(yyyy-MM-ddTHH:mm:ss.sssZ / yyyy-MM-ddTHH:mm:ssZ)	No	URL	
resource_id	String	octor choosen by user	No	URL	
center_id	String	Clinic choosen by user	No	URL	
appointment_status	String	status of the appointment(user wants to update the status from booked to Confirmed) *** appointment_status valid	No	URL	

		values are Booked and Confirmed, Ex... (Booked to Confirmed) and (Confirmed to Booked)			

Response Parameters:

Name	Type	Additional Information
return_message	String	Message specifying operation information
return_code	String	value

Status and Return codes:

Http Status code	return_code	return_message
200	2001	"Success"
400	1001	"invalid request token,please login again"
400	1002	"Mandatory fields are not supplied"
400	1003	"Permission Denied. Please check with Administrator."
400	1021	"The resource is not schedulable"
400	1022	"This time slot is already booked for this patient"
400	1023	"appointment_duration parameter is not required"
400	1024	"The resource is not available"
500	1025	"failed to update the Appointment."
400	1026	"Invalid appointment date"

400	1027	"The time slot for this resource is already booked"
400	1028	"Appointments in 'Cancel' or 'No Show' status can not be updated."
400	1029	"Appointment can not be booked for default center"
400	1030	"The number of appointments booked for this slot has hit the overbook limit."

Sample data :
1.
```
{
        "return_message": "Success",
        "return_code": "2001"
        }
```

Operation: Cancel appointment request (POST request to insta)

Request URL: http:serveripaddress/instaapps/Customer/doctorscheduler.do?
_method=cancelAppointment

Request Parameters:

Name	Type	Purpose	Required	Permitted Parameter Type	Deprecated Parameter Type
request_handler_key	String	request_handler provided after login into Insta	Yes	Header	URL
appointment_id	String	unique appointment_id provided by insta	Yes	URL	
cancel_reason	String	String denoting the reason for cancellation	Yes	URL	

Response Parameters:

Name	Type	Additional Information
return_message	String	Message specifying operation information
return_code	String	value

Status and Return codes:

Http Status code	return_code	return_message
400	1001	"invalid request token,please login again"
400	1003	"Permission Denied. Please check with Administrator."
400	1002	"Mandatory fields are not supplied"
200	2001	"Success"
500	1021	"failed to cancel the Appointment."

Sample data :

1.{

       "return_message": "Success"

       "return_code": "2001"

  }

Operation: Get Patient Clinical Data (GET request to insta)

Request URL: http:serveripaddress/instaapps/Customer/patientclinicaldata.do?
_method=getPatientClinicalData

Request Parameters:

Name	Type	Purpose	Required	Permitted Parameter Type	Deprecated Parameter Type
request_handler_key	String	request_handler provided after login into Insta	Yes	Header	URL
from_date	String	On which date and time the user needs the data. **** from_date (yyyy-MM-ddTHH:mm:ss.sssZ / yyyy-MM-ddTHH:mm:ssZ)	Yes	URL	
to_date	String	Till which date and time the user needs data. **** from_date (yyyy-MM-ddTHH:mm:ss.sssZ / yyyy-MM-ddTHH:mm:ssZ)	No	URL	

Response Parameters:

Name	Type	Additional Information
return_message	String	Message specifying operation information
return_code	String	value
START_DATE	String	Start Date value
END_DATE	String	End Date value
LAB	List<Map>	LAB details
MEDICATIONS	List<Map>	MEDICATIONS details
ALLERGIES	List<Map>	ALLERGIES details
APPOINTMENTS	List<Map>	APPOINTMENTS details
PATIENT_DEMOGRAPHICS	List<Map>	PATIENT_DEMOGRAPHICS details
MEDICAL_PROFESSIONAL _DEMOGRAPHICS	List<Map>	MEDICAL_PROFESSIONAL _DEMOGRAPHICS details

Status and Return codes:

Http Status code	return_code	return_message
400	1001	"invalid request token,please login again"
400	1002	"Mandatory fields are not supplied"
400	1003	"Permission Denied. Please check with Administrator."
400	1021	"Invalid input parameters supplied"
400	1022	"To date can not be earlier than From date"
400	1023	"Duration can not be more than 30 days"
200	2001	"Success"

Sample data :
1.
{
  "START_DATE": "2014-05-02T12:34:22.000Z",
  "END_DATE": "2015-07-22T12:34:22.000Z",
  "LAB": [
    {
      "value_date": "2015-07-10",

```
            "patient_id": "IP000197",
            "values_id": 80073,
            "test_value": "81",
            "mod_time": "2015-06-12T18:30:00Z",
            "resultlabel": "URR" ,
            "min_normal_value":75,
            "max_normal_value":"",
            "units": "mg/dl"
    },
    {
            "value_date": "2015-06-12",
            "patient_id": "IP000197",
            "values_id": 80081,
            "test_value": "2.41",
            "mod_time": "2015-06-12T18:30:00Z",
            "resultlabel": "KT/V" ,
            "min_normal_value":"",
            "max_normal_value":""
    }
] ,
{
"MEDICATIONS": [
    {
            "medicine_remarks": "",
            "duration": 12,
            "mod_time": "2015-05-19T20:15:48Z",
            "route_name": "Rectal",
            "name": "ADOL 500MG Suppositories",
            "dosage": "",
            "op_medicine_pres_id": 2106,
            "patient_id": "OP026083",
            "duration_units": "D",
            "prescribed_date": "2015-05-19T20:15:48Z",
            "consultation_id": 24726

    }
],
"ALLERGIES": [
        {
          "reaction": "Rashes",
          "patient_id": "OP030980",
          "mod_time": "2015-08-17T18:40:22Z",
          "allergy": "Food alergy",
           "allergy_id": 5,
          "section_detail_id": 276739,
          "status": "A",
          "onset_date": "generic",
```

            "allergy_type": "N"
          }
          ],
  "APPOINTMENTS": [
    {
       "appointment_id":"78987",
       "mr_no":"MR008312",
      "res_sch_name": "OPID0114",
       "duration": 30,
       "appointment_time": 18000000,
       "res_sch_id": 2,
       "visit_id": "IP000606",
       "remarks": ""
       "center_id": "13"
       "appointment_status": "Arrived"
      }
  ],
  "PATIENT_DEMOGRAPHICS": [{
      "mobile_password": "12345",
      "first_name": "Claudia",
      "mod_time": "2015-07-23T10:56:44Z",
      "patient_name": "Mrs. Claudia Louise Shaw",
      "middle_name": "Louise",
      "patient_phone": "971505585304",
      "last_name": "Shaw",
      "gender": "Female",
      "dateofbirth": "1968-09-06",
      "email_id": "",
      "mr_no": "00010377"

      }
  ],
  "MEDICAL_PROFESSIONAL_DEMOGRAPHICS": [
  {

      "user_doc_id": "DOC0177",
      "username": "Abhay",
      "status" : "A",
      "hospital_roles" : "nurse, physician",
      "application_role" : "Admin",
      "mod_datetime": "2015-09-22T17:34:57Z",
      "name": "John L.",
      "created_timestamp": "2015-09-21T23:05:18Z",
      "center_id": 7,
      "mobile_no": "1234567876",

      "email_id":"abcd@def.com"

```
        }
]
        "return_code": "2001",
        "return_message": "Success"
}
```

Operation: Find Patients(GET request to insta)

Request URL: http:serveripaddress/instaapps/Customer/Registration/GeneralRegistration.do?_method=findPatient

Request Parameters:

Name	Type	Purpose	Required	Permitted Parameter Type	Deprecated Parameter Type
request_handler_key	String	request_handler provided after login into Insta	Yes	Header	URL
mr_no	String	mr_no of a patient	No	URL	
first_name	String	Patient's first name	No	URL	
last_name	String	Patient's first name	No	URL	
gender	String (F/M/O)	Patient's gender	No	URL	
phone_no	String	Patient's phone no.(If starts with '+', then should be url encoded as %2B)	No	URL	
email	String	Patient's email	No	URL	
last_visited_date	Date in ISO 8601 format	Last visit date	No	URL	
govt_id	String	Government ID	No	URL	
date_of_birth	ISO 8601 date string	Birth date	No	URL	

(Any one of the above parameters is required along with the request_handler_key)

Response Parameters:

Name	Type	Additional Information
patients_details	JSON list of objects	
return_message	String	Message specifying operation

		information
return_code	String	value

Status and Return codes:

Http Status code	return_code	return_message
200	2001	"Success"
400	1021	"Please specify at least one search criteria"
400	1001	"invalid request token,please login again"
400	1003	"Permission Denied. Please check with Administrator."
400	1022	"No patient found for the given search criteria"

Sample data :

```
{
"patients_details" : [
        {
          " patient_city": "CT0088",
          "government_identifier": "",
          "mlc_status": "N",
          "patient_category_id": 12,
          "identifier_id": "",
          "patient_area": "",
          "age": 33,
          "expected_dob": "1982-12-04",
          "patient_phone": "9876111145",
          "email_id": "pj@rm.com",
          "age_in": "Y",
          "patient_address": "",
          "patient_name": "Priyaj",
           "status": "A",
           "first_visit_reg_date": "",
           "vip_status": "N",
           "dateofbirth": "",
          "last_visited_center": 7,
          "patient_state": "ST0017",
          "patient_full_name": "Mrs. Priyaj M",
          "country": "CM0001",
          "last_visited_date": "2015-07-27",
          "patient_gender": "F",
          "last_name": "M",
          "salutation": "SALU0008",
          "mr_no": "MR008317"
```

```
        },...
    ]
}
```

Operation: Get Patients demographics details(GET request to insta)

Request URL: http:serveripaddress/instaapps/Customer/patientdemographicsdata.do?_method=getPatientDemographics

Request Parameters:

Name	Type	Purpose	Required	Permitted Parameter Type	Deprecated Parameter Type
request_handler_key	String	request_handler provided after login into Insta	Yes	Header	URL
from_date	String	On which date and time the user needs the data. **** from_date (yyyy-MM-ddTHH:mm:ss.sssZ / yyyy-MM-ddTHH:mm:ssZ)	Yes	URL	
to_date	String	Till which date and time the user needs data. **** from_date (yyyy-MM-ddTHH:mm:ss.sssZ / yyyy-MM-ddTHH:mm:ssZ)	No	URL	
(Any one of the above parameters is required along with the request_handler_key)					

Response Parameters:

Name	Type	Additional Information
"PATIENT_DEMOGRAPHICS	JSON list of objects	

return_message	String	Message specifying operation information
return_code	String	value

Status and Return codes:

Http Status code	return_code	return_message
200	2001	”Success”
400	1021	"Invalid input parameters supplied"
400	1022	“To date can not be earlier than From date”
400	1023	"Duration can not be more than 30 days"
400	1001	“invalid request token,please login again”
400	1003	“Permission Denied. Please check with Administrator.”
400	1002	“Mandatory fields are not supplied”

Sample data :

```
{
        "START_DATE": "2016-02-23T00:00:00Z",
        "END_DATE": "2016-03-08",
        "PATIENT_DETAILS":

        [

                {

                        "patient_address": "",
                        "patient_city": "CT0088",
                        "patient_name": "Priya",
                        "patient_state": "ST0017",
                        "dateofbirth": "2015-12-01",
                        "patient_full_name": "Ms. Priya Mathur",
                        "country": "CM0001",
                        "patient_category_id": 20,
                        "mobile_password": "yxGgOS",
                        "patient_gender": "F",
                        "mod_time": "2016-03-14T05:48:05Z",
                        "expected_dob": "1983-01-31",
                        "patient_phone": "9876111162",
                        "last_name": "Mathur",
                        "salutation": "SALU0004",
                        "email_id": "",
```

```
                "mr_no": "MR008312"
            }
    ],
    "return_code": "2001",
    "return_message": "Success"

    }
```

Operation: Change Password(POST request to insta)

Request URL: http:serveripaddress/instaapps/Customer/ChangePassword.do?
_method=updatePassword

Request Parameters:

Name	Type	Purpose	Required	Permitted Parameter Type	Deprecated Parameter Type
request_handle r_key	String	request_handle r provided after login into Insta	Yes	Header	URL
user_id	String	User id whose password needs to be changes	Yes	URL	
old_password	String	Old password	Yes	URL	
new_password	String(as per the hms installation password validation rules)	New password	Yes	URL	

Response Parameters:

Name	Type	Additional Information
return_message	String	Message specifying operation information
return_code	String	value

Status and Return codes:

Http Status code	return_code	return_message
200	2001	"Success"
400	1002	"Mandatory fields are not supplied"
400	1021	"Invalid User ID"
400	1022	"Old password is not matching with the existing password"
400	1023	"Failed to change the password." (along with

		validation error msg if any)
500	1024	"Failed to change the password."
400	1025	"New password is same as the existing password"
400	1001	"invalid request token,please login again"

Sample data :

```
{
      "return_message": "Success"
      "return_code": "2001"  }
```

Operation: Get Patient Orders(GET request to insta)

Request URL: http:serveripaddress/instaapps/Customer/Orders/PatientOrders.do?_method=getPatientOrdersData

Request Parameters:

Name	Type	Purpose	Required	Permitted Parameter Type	Deprecated Parameter Type
request_handler_key	String	request_handler provided after login into Insta	Yes	Header	URL
mr_no	String	Patient's MR No.	Yes	URL	
center_id	Int	Center id	No	URL	
from_date	String	On which date and time the user needs the data. **** from_date (yyyy-MM-ddTHH:mm:ss.sssZ / yyyy-MM-ddTHH:mm:ssZ)	Yes	URL	
to_date	String	Till which date and time the user needs data. **** from_date (yyyy-MM-ddTHH:mm:ss.sssZ / yyyy-MM-ddTHH:mm:ssZ)	No	URL	

Response Parameters:

Name	Type	Additional Information
return_message	String	Message specifying operation information
return_code	String	value

Status and Return codes:

Http Status code	return_code	return_message
200	2001	"Success"
400	1002	"Mandatory fields are not supplied"
400	1021	"Invalid input parameters supplied"
400	1022	"To date can not be earlier than From date"
400	1023	"Duration can not be more than 30 days"
400	1003	"Permission Denied. Please check with Administrator."
400	1001	"invalid request token,please login again"

Sample data :

```
{
        "patient_orders_details":

        [{

        "PATIENT_ID": "OP120849",
        "REG_DATE": "2016-03-11T05:31:24Z",
        "VISIT_TYPE": "o",
        "orders":

        [{

        "pres_doctor_name": "",
        "item_name": "Dr P N Shinde",
        "package_ref": "",
        "item_id": "DOC0141",
        "sub_type": "-1",
        "sub_type_name": "OP Consultation",
        "pres_timestamp": "2016-03-11T05:31:24Z",
        "pres_doctor_id": "",
        "type": "Doctor",
        "common_order_id": 148971,
        "order_id": 12682,
```

        "activity_code": "DOC"

      },...]

      "DISCHARGE_DATE_TIME": "",

      "STATUS": "A",
      "CENTER_ID": "7",
      MR_NO": "MR008312"

      },...]

    "return_code": "2001",

    "return_message": "Success"

Operation: Get Patients visits details(GET request to insta)

Request URL: http:serveripaddress/instaapps/Customer/Registration/GeneralRegistration.do?_method=getPatientVisits

Request Parameters:

Name	Type	Purpose	Required	Permitted Parameter Type	Deprecated Parameter Type
request_handler_key	String	request_handler provided after login into Insta	Yes	Header	URL
from_date	String	On which date and time the user needs the data. **** from_date (yyyy-MM-ddTHH:mm:ss.sssZ / yyyy-MM-ddTHH:mm:ssZ)	Yes	URL	
to_date	String	Till which date and time the user needs data. **** from_date (yyyy-MM-ddTHH:mm:ss.sssZ / yyyy-MM-ddTHH:mm:ssZ)	No	URL	
primary_sponsor_id	String	Primary Sponsor Id	No	URL	
secondary_sponsor_id	String	Secondary Sponsor Id	No	URL	

mr_no	String	MRNO of a patient	No	URL	

Response Parameters:

Name	Type	Additional Information
"patient_visits_details"	JSON list of objects	
return_message	String	Message specifying operation information
return_code	String	value

Status and Return codes:

Http Status code	return_code	return_message
200	2001	"Success"
400	1021	"Invalid input parameters supplied"
400	1022	"To date can not be earlier than From date"
400	1023	"Duration can not be more than 30 days"
400	1001	"invalid request token,please login again"
400	1003	"Permission Denied. Please check with Administrator."
400	1002	"Mandatory fields are not supplied"
400	1024	"No visits found for the given search criteria"
500	1025	"Failed to retrieve the visits"

Sample data :
```
{
        "START_DATE": "2016-03-16",
        "END_DATE": "2016-04-14",

        "patient_visits_details": [
         {

            "SECONDARY_SPONSOR_MOBILE_NO": "",
            "SECONDARY_SPONSOR_NAME": "",
            "CENTER_ID": "7",
            "SECONDARY_SPONSOR_ID": "",
            "MR_NO": "MR012714",
            "SECONDARY_PLAN_NAME": "",
            "PATIENT_NAME": "Testing",
```

```
            "SECONDARY_SPONSOR_EMAIL_ID": "",
            "PRIMARY_PLAN_NAME": "General Insurance",
            "PRIMARY_SPONSOR_MOBILE_NO": "",
            "PRIMARY_PLAN_ID": "34",
            "EMAIL_ID": "",
            "ORG_NAME": "GENERAL",
            "REG_DATE_TIME": "2016-04-11T12:33:11Z",
            "VISIT_ID": "OP120999",
            "RATE_PLAN_ID": "ORG0001",
            "PRIMARY_SPONSOR_ID": "TH00012",
            "PRIMARY_SPONSOR_EMAIL_ID": "",
            "CENTER_NAME": "BRS",
            "PRIMARY_SPONSOR_NAME": "General Insurance",
            "PATIENT_PHONE": "6666",
        "SECONDARY_PLAN_ID": ""
    },...
]
    "return_code": "2001",
    "return_message": "Success"
    }
```

Operation: Get Diag Reports for a visit (GET request to insta)

Request URL: http:serveripaddress/instaapps/Customer/DiagnosticModule/DiagPrint.do?
_method=getDiagReportsForVisit

Request Parameters:

Name	Type	Purpose	Required	Permitted Parameter Type	Deprecated Parameter Type
request_handler_key	String	request_handler provided after login into Insta	Yes	Header	URL
visitId	String	For which visit user needs to get all the diag reports. **** Patient's Visit Id.	Yes	URL	
logoHeader	String	Overrides the priter preferences logo_header property with this value. Print generates based on this value. Allowed values are Y- Logo and Header L- Logo Only H- Header Only N- None	No	URL	

Response Parameters:

If request is success, response will be PDF output. Otherwise following parameters will be

returned**.**

PDF output

Name	Type	Additional Information
return_message	String	Message specifying operation information
return_code	String	value

Status and Return codes:

Http Status code	return_code	return_message
200		PDF Output
400	1001	"invalid request token,please login again"
400	1002	"Mandatory fields are not supplied"
400	1003	"Permission Denied. Please check with Administrator."

Operation: Get Incoming Patients visits details(GET request to insta)

Request URL: http:serveripaddress/instaapps/Customer/Registration/GeneralRegistration.do?_method=getIncomingPatientVisits

Request Parameters:

Name	Type	Purpose	Required	Permitted Parameter Type	Deprecated Parameter Type
request_handler_key	String	request_handler provided after login into Insta	Yes	Header	URL
from_date	String	On which date and time the user needs the data.	Yes	URL	

		**** from_date (yyyy-MM-ddTHH:mm:ss.sssZ / yyyy-MM-ddTHH:mm:ssZ)			
to_date	String	Till which date and time the user needs data. **** from_date (yyyy-MM-ddTHH:mm:ss.sssZ / yyyy-MM-ddTHH:mm:ssZ)	No	URL	
incoming_hospital_id	String	Incoming hospital Id	No	URL	

Response Parameters:

Name	Type	Additional Information
"incoming_patient_visits_details"	JSON list of objects	
return_message	String	Message specifying operation information
return_code	String	value

Status and Return codes:

Http Status code	return_code	return_message
200	2001	"Success"
400	1021	"Invalid input parameters supplied"
400	1022	"To date can not be earlier than From date"
400	1023	"Duration can not be more than 30 days"
400	1001	"invalid request token,please login again"

400	1003	"Permission Denied. Please check with Administrator."
400	1002	"Mandatory fields are not supplied"
400	1024	"No visits found for the given search criteria"
500	1025	"Failed to retrieve the visits"

Sample data :

```
{
        "START_DATE": "2016-03-16",
        "END_DATE": "2016-04-14",

        "incoming_patient_visits_details": [
          {

              "PHONE_NO": "989858",

              "PATIENT_NAME": "Ms. Medha Test Status",
              "REG_DATE_TIME": "2016-03-30T14:15:13Z",
              "INCOMING_VISIT_ID": "IN000185",
              "INCOMING_HOSP_ID": "IH0011",
              "AGE_UNIT": "Y",
              "HOSPITAL_NAME": "BRS",
              "PATIENT_AGE": "21",
              "PATIENT_GENDER": "F",
              "BILLNO": "BC16000494"

         },....
         ]

        "return_code": "2001",
        "return_message": "Success"

         }
```

Operation: Incoming Sample Registration (GET request to insta)

Request URL: http:serveripaddress/instaapps/Customer/isr.do?_method=`savePrescription`

Request Parameters:

Name	Type	Purpose	Required	Permitted Parameter Type	Deprecated Parameter Type
request_handler_key	String	request_handler provided after login into Insta	Yes	Header	URL
testId	String	Test Id which exists in diagnostics table	Yes	URL	
patientname	String	Name of the patient whose sample is	Yes	URL	
agefield	String	Age of the patient(YYYYMMDDHH24MISS)	Yes	URL	
gender	String	Patient gender	Yes	URL	
orig_sample_no	String	Sender hospital patient sample number	Yes	URL	
centerName	String	Required in case of center base hospital	Yes / No	URL	
orginalLabName		Sender hospital Name		URL	

Response Parameters:

Name	Type	Additional Information

return_message	String	Message specifying operation information
return_code	String	value

Status and Return codes:

Http Status code	return_code	return_message
400	1002	"Mandatory fields are not supplied"
400	1001	"invalid request token,please login again"
500	1025	"failed to Cancel the Appointment."
400	1021	"Failed to cancel Appointment"
200	2001	"Success"

Sample data :
1.
{

   "return_message": "Success"
   "return_code": "2001"

}

Operation: Get Patient Visit EMR Details (GET request to insta)

Request URL: http:serveripaddress/instaapps/Customer/emr/VisitEMRView.do?
_method=getVisitEMR

Request Parameters:

Name	Type	Purpose	Required	Permitted Parameter Type	Deprecated Parameter Type
request_handler_key	String	request_handler provided after login into Insta	Yes	Header	URL
visitId	String	Get all the reports for this visit. Patient Visit Id.	Yes	URL	
logoHeader	String	Overrides the priter preferences logo_header property with this value. Print generates based on this value. Allowed values are Y- Logo and Header L- Logo Only H- Header Only N- None	No	URL	

Response Parameters:

Name	Type	Additional Information
return_message	String	Message specifying operation information
return_code	String	value
patient_visit_emr_documents	List<Map>	patient_visit_emr_documents details

Status and Return codes:

Http Status code	return_code	return_message
200	2001	"Success"
400	1001	"invalid request token,please login again"
400	1021	"Invalid input parameters supplied"
500	1022	"fail to get emr data"
200	1003	"Permission Denied. Please check with Administrator."
200	1002	"Mandatory fields are not supplied"

Sample data :
1.
{

    "return_code": "2001",
    "return_message": "Success",
    "patient_visit_emr_documents": [

    [
        {
            "class": "com.insta.hms.emr.DocHolder",
            "filterId": "OP023204",
            "label": "2013-12-24 (OP023204)",
            "viewDocs": [
                {
                    "pdfSupported": true,
                    "provider": "ConsultationsProvider",
                    "contentType": "application/pdf",
                    "visitDate": "2013-12-23T18:30:00Z",
                    "date": "2013-12-24T13:04:44Z",
                    "type": "SYS_CONSULT",

```
                              "doctor": "Dr. Mohan Rangaswamy ",
                              "annotation": "",
                              "displayUrl": "/emr/print.do?
                              method=printConsultation&consultation_id=22077&printerId
                              =4&allFields=Y&fromEmr=Y",
                              "docid": "22077",
                              "title": "Case Sheet - Dr. Mohan Rangaswamy ",
                              "visitid": "OP023204",
                              "description": ""
                    }
                ]
        },

}
```

Patient Centric APIs

Operation: Login (POST request to insta)

Request URL: http:serveripaddress/instaapps/login.do?_method=login

Request Parameters:

Name	Type	Purpose	Required
hospital_name	String	Customer name	Yes
mobile_user_id	String	User name	Yes
mobile_user_password	String	Password	Yes

Response Parameters:

Name	Type	Additional Information
return_message	String	Message specifying operation information
return_code	String	value

Status and Return codes:

Http Status code	return_code	return_message
200	2001	”Success”
401	1021	”invalid username or password”
400	1002	“Mandatory fields are not supplied”
500	1022	“Failed to login the user”

Sample data :
1.
{

        "return_message": "Success",
        "return_code": "2001"
        }

Operation: Request for All Salutations,Cities,States,Patient Categories(GET request to insta)

Request URL:
http:serveripaddress/instaapps/Registration/GeneralRegistration .do?_method=getRegMasterData

Request Parameters:

Name	Type	Purpose	Required
NA	--	--	--

Response Parameters:

Name	Type	Additional Information
return_message	String	Message specifying operation information
return_code	String	value
allStates	List<Map>	AllStates details
allCities	List<Map>	AllCities details
allPatientCategories	List<Map>	AllPatientCategories details
allSalutations	List<Map>	AllSalutations details

Status and Return codes:

Http Status code	return_code	return_message
200	2001	"Success"
401	1001	"Session is expired, please login again"

Sample data :
1.
```
{
    "allStates": [
        {
                "state_name": "GOA",
                "state_id": "ST0011",
                "country_id": "CM0001"
```

```
        },
                ]
    "allCities": [
        {
                "city_id": "CT0002",
                "state_id": "ST0002",
                "city_name": "OTHER"
        },
                ]
    "allPatientCategories": [
        {
                "center_id": 0,
                "category_name": "General",
                "category_id": 1
        },
                        ]
    "allSalutations": [
        {
                "salutation": "Baby",
                "gender": "",
                "salutation_id": "SALU0008"
        },
                    ]

    "return_message": "Success"
    "return_code": "2001"
}
```

Operation: Request for list of all centers/departments and doctors in them (GET request to insta)

Request URL:
http:serveripaddress/instaapps/doctorscheduler.do?_method=getSchedulerMasterData

Request Parameters:

Name	Type	Purpose	Required
status	String	Can have value as 'all'. If provided, api returns active and inactive centers, departments and doctors. If not provided , api returns only active centers, departments and doctors. When status parameter provided, inactive doctors as well as doctors having inactive association with center are included in api response along with active doctors.	No

Response Parameters:

Name	Type	Additional Information
"return_message"	String	Message specifying operation information
"return_code"	String	value
"hospital_center_master"	List<map>	hospital_center_master details
"hospital_doctors"	List<Map>	hospital_doctors details
"hospital_departments"	List<Map>	hospital_departments details

Status and Return codes:

Http Status code	return_code	return_message
200	2001	"Success"

401	1001	”Session is expired, please login again.”
400	1021	“Invalid status parameter”

Sample data :
1.

```
{
        "hospital_center_master": [
        {
                "center_code": "Default Center",
                "center_address": "dddddddddddddd",
                "country_id": "CM0003",
                "region_id": "",
                "hospital_center_service_reg_no": "DHA-F-0000560",
                "city_id": "CT0618",
                "center_contact_phone": "77777777777",
                "state_id": "ST0037",
                "accounting_company_name": "Dddddddddddddd",
                "health_authority": "DHA",
                "center_name": "Default Center",
                "updated_timestamp": "2015-08-07T07:29:10Z",
                "created_timestamp": "2014-01-29T22:46:36Z",
                "center_id": 0,

                "status":"A"

        },
   hospital_doctors": [

{

                "doctor_name": "Prof. Dr. Semir Al Samarrai ",
                "consulting_doctor_flag": "N",
                "doctor_center_status":"A",
                "doctor_status":"A",
                "payment_eligible": "N",
                "doctor_type": "HOSPITAL",
                "allowed_revisit_count": "",
                "doctor_mail_id": "",
                "doctor_id": "DOC0045",
                "doctor_license_number": "MS0237-7",
                "custom_field4_value": "",
                "dept_id": "DEP0018",
                "qualification": "",
                "ip_discharge_consultation_validity": "",
                "custom_field3_value": "",
```

```
                "updated_timestamp": "2014-01-30T09:46:37Z",
                "overbook": false,
                "created_timestamp": "2014-01-30T09:46:37Z",
                "custom_field1_value": "",
                "ip_template_id": 0,
                "specialization": "",
                "ip_discharge_consultation_count": "",
                "custom_field2_value": "",
                "res_phone": "",
                "practition_type": " ",
                "ot_doctor_flag": "Y",
                "doctor_mobile": "",
                "schedule": true,
                "registration_no": "",
                "doctor_address": "",
                "op_consultation_validity": "",
                "clinic_phone": "",
                "center_id": 0,
                "custom_field5_value": "",
                "payment_category": 1,
                "doc_center_id": 6
        },
        ]
        "hospital_departments": [
        {
                "dept_type_id": "",
                "dept_id": "DEP0016",
                "cost_center_code": "Administration",
                "dept_name": "Administration",
                "status":"A"
        },
        ]
    "return_message": "Success",
    "return_code": "2001",
}
```

Operation: Request for list of DoctorAvailabilitySlots (GET request to insta)

Request URL:
http:serveripaddress/instaapps/doctorscheduler.do?_method=getDoctorAvailabilitySlots

Request Parameters:

Name	Type	Purpose	Required
resource_id	String	doctor chossen by user	Yes
appointment_date	String	appointment_date(yyyy-MM-dd at the minimum)	No

Response Parameters:

Name	Type	Additional Information
return_message	String	Message specifying operation information
return_code	String	value
doctor_first_available_date	String	Doctor available date
doctor_available_times	List<String>	Doctor available times

Status and Return codes:

Http Status code	return_code	return_message
400	1002	"Mandatory fields are not supplied"
400	1021	"Invalid appointment date"
401	1001	"Session is expired, please login again"
200	2001	"Success"

Sample data :
1.
```
{
        "doctor_first_available_date": "2015-09-11"
        "doctor_available_times": [
                "2015-09-11T02:30:00Z",
                "2015-09-11T02:45:00Z",
                "2015-09-11T03:00:00Z"
                ]
        "return_message": "Success"
        "return_code": "2001"
}
```

Operation: Request for list of DoctorAvailabilitySlots for a date range(GET request to insta)

Request URL:
http:serveripaddress/instaapps/doctorscheduler.do?_method=getDoctorAvailabilitySlotsForRange

Request Parameters:

Name	Type	Purpose	Required
resource_id	String	doctor chossen by user	Yes
from_date	String	start_date for a range(yyyy-MM-dd at the minimum in ISO 8601 format)	Yes
to_date	String	end_date for a range (yyyy-MM-dd at the minimum in ISO 8601 format)	No

If to_date is not specified then availability slots for 30days from from_date are returned.

Response Parameters:

Name	Type	Additional Information
return_message	String	Message specifying operation information
return_code	String	value
doctor_availability_slots	JSON Object	List of Availability slots for each date

Status and Return codes:

Http Status code	return_code	return_message
400	1002	"Mandatory fields are not supplied"
400	1021	"Invalid from date"
400	1022	"Invalid to date"
400	1023	"To date can not be earlier than From date"
400	1024	"Duration can not be more than 30 days"
401	1001	"Session is expired, please login again"

200	2001	"Success"

Sample data :

1.

```
{
        "doctor_availability_slots": {
                "2016-05-30": [
                        "2016-05-29T19:30:00Z",
                        "2016-05-29T19:45:00Z"

],

                "2016-05-29": "No available slots",
                "2016-05-28": "No available slots"
        },
        "return_message": "Success",
        "return_code": "2001"

}
```

Operation: Save appointment request (POST request to insta)

Request URL: http:serveripaddress/instaapps/doctorscheduler.do?_method=saveAppointment

Request Parameters:

Name	Type	Purpose	Required
appointment_date	String	appointment date choosen by user(yyyy-MM-ddTHH:mm:ss.ssssssZ format. Year, month, day, hour and minutes fields should be present)	Yes
resource_id	String	doctor choosen by user	Yes
center_id	String	clinic choosen by user	Yes

Response Parameters:

Name	Type	Additional Information
return_message	String	Message specifying operation information
return_code	String	value

Status and Return codes:

Http Status code	return_code	return_message
400	1002	"Mandatory fields are not supplied"
400	1021	"Resource is not schedulable"
400	1022	"This time slot is already booked for this patient"
400	1023	"The time slot for this resource is already booked"
400	1024	"The resource is not available"
500	1025	"failed to book the Appointment."

400	1026	"Invalid appointment date"
400	1027	"Appointment can not be booked for default center"
400	1028	"Please update the mobile number before booking an appointment"
400	1029	"The number of appointments booked for this slot has hit the overbook limit"
401	1001	"Session is expired, please login again"
200	2001	"Success"

Sample data :
1.
{

      "return_message": "Success"
      "return_code": "2001"

}

Operation: Get Patient Visit and Medical Reports(GET request to insta)

Request URL: http:serveripaddress/instaapps/patientEmrView.do?
_method=getPatientEMRVisitDetails

Request Parameters:

Name	Type	Purpose	Required
NA	--	--	No

Response Parameters:

Name	Type	Additional Information
return_message	String	Message specifying operation information
return_code	String	value
patient_visit_emr_documents	List<Map>	patient_visit_emr_documents details

Status and Return codes:

Http Status code	return_code	return_message
200	2001	"Success"
401	1001	"Session is expired, please login again"
500	1021	"fail to get emr data"

Sample data :
1.
{

    "return_code": "2001",
    "return_message": "Success",

```json
"patient_visit_emr_documents": [
    [
        {
            "class": "com.insta.hms.emr.DocHolder",
            "filterId": "OP023204",
            "label": "2013-12-24 (OP023204)",
            "viewDocs": [
                {
                    "pdfSupported": true,
                    "provider": "ConsultationsProvider",
                    "contentType": "application/pdf",
                    "visitDate": "2013-12-23T18:30:00Z",
                    "date": "2013-12-24T13:04:44Z",
                    "type": "SYS_CONSULT",
                    "doctor": "Dr. Mohan Rangaswamy ",
                    "annotation": "",
                    "displayUrl": "/emr/print.do?
method=printConsultation&consultation_id=22077&printerId
=4&allFields=Y&fromEmr=Y",
                    "docid": "22077",
                    "title": "Case Sheet - Dr. Mohan Rangaswamy ",
                    "visitid": "OP023204",
                    "description": ""
                }
            ]
        },

}
```

Operation: Get Test Value trend (GET request to insta)

Request URL: http:serveripaddress/instaapps/patientEmrView.do?_method=getTestResultsView

Request Parameters:

Name	Type	Purpose	Required
NA	--	--	No

Response Parameters:

Name	Type	Additional Information
		server sends a output stream which is a type of application/vnd.ms-excel.

Status and Return codes:

Http Status code	return_code	return_message

Operation: Get Vitals Trend(GET request to insta)

Request URL: http:serveripaddress/instaapps/patientEmrView.do?_method=getVitalsView

Request Parameters:

Name	Type	Purpose	Required
NA	--	--	No

Response Parameters:

Name	Type	Additional Information
		server sends a output stream which is a type of application/vnd.ms-excel.

Status and Return codes:

Http Status code	return_code	return_message

Operation: Change Password(POST request to insta)

Request URL: http:serveripaddress/instaapps/changePassword.do?_method=updatePassword

Request Parameters:

Name	Type	Purpose	Required
mobile_old_password	String	Old password	Yes
mobile_new_password	String(Max 6 characters)	New password	Yes

Response Parameters:

Name	Type	Additional Information
return_message	String	Message specifying operation information
return_code	String	value

Status and Return codes:

Http Status code	return_code	return_message
200	2001	”Success”
400	1002	"Mandatory fields are not supplied"
400	1021	"Old and new password are same."
400	1022	"Old password is not matching with the existing password"
400	1023	“Password length should not be more than 6”
401	1001	“Session is expired, please login again”

Sample data :
1.
{
    "return_message": ”Success”
    "return_code": "2001"

```
    }
```

Operation: Request for list of Patient Appointment Details (GET request to insta)

Request URL:
http:serveripaddress/instaapps/doctorscheduler.do?_method=getPatientAppointmentDetails

Request Parameters:

Name	Type	Purpose	Required
		mr_no given by session object	

Response Parameters:

Name	Type	Additional Information
return_message	String	Message specifying operation information
return_code	String	value
patient_appointment_details	List<Map>	patient_appointment_details details

Status and Return codes:

Http Status code	return_code	return_message
401	1001	"Session is expired, please login again."
200	2001	"Success"

Sample data :
1.
{
    "patient_appointment_details": [
     {

```
        "doctor_name": "Kay Vosloo",
        "res_sch_id": 1,
        "salutation_name": "",
        "remarks": "michelle.jalaei@hotmail.co.uk- email sent",
        "changed_time": "2014-01-30T04:27:01Z",
        "arrival_time": "2014-01-30T04:29:11Z",
        "appointment_time": "2014-01-30T04:45:00Z",
        "scheduler_prior_auth_no": "",
        "patient_contact": "971566031968",
        "cancel_reason": "",
        "complaint": "",
        "completed_time": "",
        "res_sch_name": "DOC0063",
        "changed_by": "kristel",
        "patient_name": "Babak Jalaei",
        "rescheduled": "N",
        "consultation_type_id": -1,
        "booked_time": "2014-01-21T09:54:50Z",
        "presc_doc_id": "",
        "appointment_status": "Arrived",
        "orig_appt_time": "",
        "appointment_type": "Consultation",
        "duration": 75,
        "center_name": "Center1",
        "scheduler_prior_auth_mode_id": 1,
        "visit_id": "OP024626",
        "scheduler_visit_type": "M",
        "appointment_id": 49604,
        "center_id": 0,
        "mr_no": "00011787",
        "booked_by": "kristel",
        "prim_res_id":"DOC0063"
    }

                    ]
 "return_code": "2001",
 "return_message": "Success"

}
```

Operation: Update Appointment request (POST request to insta)

Request URL: http:serveripaddress/instaapps/doctorscheduler.do?_method=updateAppointment

Request Parameters:

Name	Type	Purpose	Required
appointment_id	String	unique appointment_id provided by insta	Yes
appointment_date	String	appointment date choosen by user(yyyy-MM-ddTHH:mm:ss.sssZ / yyyy-MM-ddTHH:mm:ssZ)	No
resource_id	String	doctor choosen by user	No
center_id	String	clinic choosen by user	No

Response Parameters:

Name	Type	Additional Information
return_message	String	Message specifying operation information
return_code	String	value

Status and Return codes:

Http Status code	return_code	return_message
400	1002	"Mandatory fields are not supplied"
400	1001	"invalid request token,please login again"

400	1022	"This time slot is already booked for this patient"
400	1027	"The time slot for this resource is already booked"
400	1024	"The resource is not available"
500	1025	"failed to Update the Appointment."
400	1021	"The resource is not schedulable"
400	1026	"Invalid Appointment Date"
400	1028	"Appointments in 'Cancel' or 'No Show' status can not be updated."
400	1029	"Appointment can not be booked for default center"
400	1030	"The number of appointments booked for this slot has hit the overbook limit"
401	1001	"Session is expired, please login again"
200	2001	"Success"

Sample data :
1.
{

    "return_message": "Success"
    "return_code": "2001"

}

Operation: Cancel Appointment request (POST request to insta)

Request URL: http:serveripaddress/instaapps/doctorscheduler.do?_method=cancelAppointment

Request Parameters:

Name	Type	Purpose	Required
appointment_id	String	unique appointment_id provided by insta	Yes
cancel_reason	String	Reason for Cancel the Appointment	Yes

Response Parameters:

Name	Type	Additional Information
return_message	String	Message specifying operation information
return_code	String	value

Status and Return codes:

Http Status code	return_code	return_message
400	1002	"Mandatory fields are not supplied"
400	1001	"invalid request token,please login again"

500	1025	"failed to Cancel the Appointment."
400	1021	"Failed to cancel Appointment"
401	1001	"Session is expired, please login again"
200	2001	"Success"

Sample data :
1.
{
    "return_message": "Success"
    "return_code": "2001"

}

Operation: Get patient details request (GET request to insta)

Request URL: http:serveripaddress/instaapps/Registration/GeneralRegistration.do?
_method=getPatientDetails

Request Parameters:

Name	Type	Purpose	Required

Response Parameters:

Name	Type	Additional Information
return_message	String	Message specifying operation information
return_code	String	value

Status and Return codes:

Http Status code	return_code	return_message
500	1021	"Failed to get patient details"
401	1001	"Session is expired, please login again"
200	2001	"Success"

Sample data :
1.
{
    patient_details": {
        "patient_city": "CT0088",
        "dateofbirth": "",
        "other_allergies": "",
        "custom_list6_value": "AGRICULTURE",
        "patient_category_id": 20,
        "patient_phone2": "",
        "custom_list9_value": "",
        "expected_dob": "1991-10-30",
        "email_id": "",
        "no_allergies": "",

"death_date": "",
"custom_field3": "dwsdd",
"custom_field2": "",
"custom_field1": "",
"middle_name": "",
"custom_field7": "",
"custom_field6": "",
"custom_field5": "",
"custom_list3_value": "",
"custom_field4": "",
"custom_list4_value": "",
"custom_field9": "",
"country": "CM0001",
"custom_field8": "",
"patient_gender": "M",
"last_name": "S",
"mr_no": "MR008315",
"food_allergies": "",
"government_identifier": "",
"custom_list5_value": "",
"dead_on_arrival": "N",
"patient_area": "",
"identifier_id": "",
"patient_phone": "9876111159",
"med_allergies": "",

"patient_address": "",

"oldmrno": "",
"first_visit_reg_date": "2015-04-30",
"patient_name": "Ankita",
"custom_field16": "",
"custom_field15": "",
"patient_state": "ST0017",
"custom_field18": "",
"custom_field17": "",
"custom_field19": "",
"custom_list1_value": "CAMP",
"mobile_password": "123456",
"custom_field10": "",
"original_mr_no": "",
"custom_field11": "",
"custom_field12": "",
"custom_field13": "",
"custom_field14": "",
"custom_list2_value": "Acute Patient",
"custom_list8_value": "",
"salutation": "SALU0008",

```
        "death_reason_id": "",
        "death_time": "",
        "custom_list7_value": ""
    },
    "return_message": "Success"

    "return_code": "2001"
}
```

Operation: Get photo (GET request to insta)

Request URL: http:serveripaddress/instaapps/images.do?_method=getPhoto

Request Parameters:

Name	Type	Purpose	Required
type	String	To specify whether doctor's photo or patient's photo is requested. It can take these values : D for doctor and P for patient	Yes
doctor_id	String	Required only when type = D to specify the doctor_id of the doctor	Yes when type = D

Response Parameters:

Name	Type	Additional Information
return_message	String	In case of failure, message specifies the reason.
return_code	String	Return code returned in case of failure (not able to return the photo)

Status and Return codes:

Http Status code	return_code	return_message
500	1021	"Failed to retrieve photo"
401	1001	"Session is expired, please login again"
400	1002	"Mandatory fields are not supplied"
400	1022	"No photo found"
400	1023	"Invalid input parameters"

Sample data :
{
        "return_code": "1022",
        "return_message": "No photo found"

}
On success, photo is returned in resposne with content type as `image/gif`

Operation: Logout (GET request to insta)

Request URL: http:serveripaddress/instaapps/logout.do?_method=`logout`

Request Parameters:

Name	Type	Purpose	Required

Response Parameters:

Name	Type	Additional Information
return_message	String	Message specifying operation information
return_code	String	value

Status and Return codes:

Http Status code	return_code	return_message
400	1001	"Session is expired, please login again"
500	1021	"Failed logging out"
200	2001	"Success"

Sample data :
1.
{

    "return_message": "Success"
   "return_code": "2001"

}

Back Office APIs

Operation: Get Vouchers (GET request to insta)

Request URL: http:<server.ip.address>/instaapps/api/accounting/vouchers/list.json

Request Parameters:

Name	Type	Purpose	Required
from_date	String	Date from which the accounting vouchers have to be retrieved.	Required
to_date	String	Date (inclusive) upto which the accounting vouchers have to be retrieved.	Optional, when not specified, current date is assumed.
voucher_type	String	Voucher types to be exported	Optional. If not specified, all vouchers will be exported.
center_id	String	Hospital center for which the vouchers have to be retrieved	One of center_id OR account_group_id is required.
account_group_id	String	Account Group (pharmacy) for which vouchers have to be retrieved	One of center_id OR account_group_id is required.
summarize	String	Whether vouchers should be consolidated by account heads and only totals should be included in the result. True results in only summary to be included in the output. False results in all vouchers with details to be included in the output	Optional. When not specified, false is assumed.
open_only	String	**True** will retrieve only	

| | | those vouchers which are not yet marked as exported.
False will retrieve all vouchers meeting other filter criteria, whether they have been marked as exported or not. | |

Response Parameters:

Name	Type	Additional Information
return_message	String	In case of failure, message specifies the reason.
return_code	String	Return code returned in case of failure (not able to return the vouchers)

Status and Return codes:

Http Status code	return_code	return_message
500	2001	"Failed to retrieve accounting vouchers"
401	2002	"Session has expired, please login again"
500	2003	"Mandatory fields are not supplied"
400	2004	"No Vouchers Found"
400	2005	"Invalid input parameters"

Sample output data :

```
{
    "data": [ {
      "receipt_store_center": "",
      "transaction_type": "N",
      "po_number": "",
      "account_group": 1,
      "voucher_date": 1480962600000,
      "gross_amount": 300,
      "item_code": "GREG",
      "round_off_amount": 0,
      "voucher_no": "AB16000504",
      "grn_date": "",
```

"voucher_ref": "",
"outhouse_name": "",
"quantity": 1,
"visit_type": "o",
"bill_open_date": 1481016635618,
"prescribing_doctor": "",
"payee_doctor": "",
"custom_1": "300.00",
"custom_5": "0",
"points_redeemed": 0,
"custom_4": "Revenue-Other Services",
"points_redeemed_amount": 0,
"custom_3": "",
"is_tpa": "N",
"custom_2": "",
"supplier_name": "",
"custom_9": "",
"custom_8": "",
"custom_7": "",
"custom_6": "",
"discount_amount": 0,
"cost_amount": 0,
"purchase_vat_amount": 0,
"center_name": "abc",
"mod_time": 1481016635528,
"item_name": "",
"sales_vat_percent": 0,
"visit_id": "OP121135",
"admitting_doctor": "Center Doc3",
"invoice_no": "",
"charge_head": "General Registration",
"mr_no": "MR012871",
"receipt_store": "",
"update_status": 1,
"net_amount": 300,
"issue_store_center": "",
"points_redeemed_rate": 0,
"custom_11": "",
"custom_10": "",
"remarks": "",
"invoice_date": "",
"unit_rate": 0,
"audit_control_number": "",
"currency": "",
"old_mr_no": "",
"insurance_co": "",
"counter_no": "",

```
        "po_date": "",
        "tax_amount": 0,
        "item_category_id": 0,
        "issue_store": "",
        "credit_account": "Revenue-Other Services",
        "currency_conversion_rate": 0,
        "debit_account": "Counter Receipts",
        "bill_no": "AB16000504",
        "conducting_department": "",
        "voucher_type": "HOSPBILLS",
        "conductiong_doctor": "",
        "incoimng_hospital": "",
        "bill_finalized_date": "",
        "referral_doctor": "",
        "guid": "ACC0000000000001",
        "unit": "",
        "admitting_department": "Laboratory",
        "service_sub_group": "Direct Charge",
        "charge_group": "Registration",
        "center_id": 18,
        "sales_vat_amount": 0,
        "purchase_vat_percent": 0,
        "service_group": "Direct Charge                                                        "
    } ],
  "return_code": "2000",
  "return_message": "Success"
}
```

Operation: Get Events (GET request to insta)

Request URL: http:serveripaddress/instaapps/api/accounting/events.json

Request Parameters:

Name	Type	Purpose	Required
from_date	String	To specify the date from which the accounting events have to be retrieved.	Yes
to_date	String	To specify the date upto which the accounting events have to be retrieved.	No, when not specified, current date is assumed.

event_type	String	To specify the event type to be exported	No. If not specified, all events will be exported.

Response Parameters:

Name	Type	Additional Information
return_message	String	In case of failure, message specifies the reason.
return_code	String	Return code returned in case of failure (not able to return the event data)

Status and Return codes:

Http Status code	return_code	return_message
500	2011	"Failed to retrieve accounting events"
401	2012	"Session has expired, please login again"
500	2013	"Mandatory fields are not supplied"
400	2014	"No Events Found"
400	2015	"Invalid input parameters"

Sample data :
```
{
    "events" : [{
     "entity_name" : "BILL"
     "entity_id": "BN000234",
     "event_name": "BILL_FINALIZATION"
     "event_date_time": "2017-12-06 16:02:53",
   }],
  "return_code": "2000",
  "return_message": "Success"
}
```

Operation: Mark as exported(POST request to insta)

Request URL: http:serveripaddress/instaapps/api/accounting/exportstatus/update.json

Request Parameters:

Name	Type	Purpose	Required
application_id	String	Application that is importing the accounting DATA	Optional. Currently only one integration application per customer schema is supported. Hence the default will be assumed.
guid	String	GUID of the voucher whose status should be updated	Yes
new_status	String	New status to which the voucher export status should be updated to.	Yes. 1 – For successfully imported -1 – Attempted import, but failed.

Response Parameters:

Name	Type	Additional Information
return_message	String	In case of failure, message specifies the reason.
return_code	String	Return code returned in case of failure (not able to update the status)

Status and Return codes:

Http Status code	return_code	return_message
500	2021	"Failed to update accounting vouchers"
401	2022	"Session has expired, please login again"
500	2023	"Mandatory fields are not supplied"
400	2024	"No Vouchers Found"

400	2025	"Invalid input parameters"

Sample data :
{
  "return_code": "2003",
  "return_message": "Mandatory Fields not supplied"
}